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NEW

"TO IMPROVE THE SOIL AND MIND."

SERIES.

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No. 2.

OUR PLATE—AYRSHIRE CATTLE.

THE principal design of our plate, is to furnish a portrait of the imported Ayrshire cow *Ayr*, (on the left,) but in order to convey an idea of her size, her figure is accompanied by that of a medium-sized Durham cow, *Charlotte*—the proportions corresponding to the relative size of the animals; both of which are the property of E. P. PRENTICE, Esq., of Mount Hope, near Albany.

Ayr, whose likeness has been very accurately delineated by Mr. VAN ZANDT, is nine years old, and was imported in 1842. She is nearly a model of what, in our opinion, a dairy cow should be, and on this account we deem it proper to give a tolerably full description of her. She possesses in a high degree the excellent milking properties which distinguish the best of the breed to which she belongs, united to a more perfect symmetry than we have ever seen in any other Ayrshire, and which we have seldom, if ever, known equalled in any breed. Her body, (as will be seen by a comparison of the figures,) is small; but her frame or bone is proportionately less. The head is small, the face dished, the forehead broad, and the eye prominent. The neck is small at the junction of the head, but pretty deep and full at its connection with the body. The back is straight, the crops fine, the ribs round, the loins broad, the flanks deep, the udder capacious, (spreading wide on the body, but not hanging low,) and the milk-veins large and prominent. The legs are small, but strong, hard and sinewy, like those of a deer. The great depth and length of the hind quarters might, from a profile view, give the idea that the chest was too light; but though the hind quarters are proportionately heaviest, (as we prefer to have them in a milch cow,) there is no deficiency in the fore end. The sternum (or breast-bone) is wide, the fore legs stand wide apart, the bosom is full, and the first ribs are particularly full and wide-spread at their junction with the sternum, giving a chest of great capacity for an animal of her size.

As her form and general appearance indicate, she is healthy and hardy. Her skin is of a yellowish hue, mellow and elastic; and though she does not possess the fattening quality in an excessive degree, or to an extent that would interfere with her dairy qualities, she thrives very rapidly when not giving milk. The quantity of milk she affords is, in proportion to her size, quite extraordinary. She has given, when on grass-feed only, upwards of twenty quarts (by actual measure) per day, and she continues in milk till near calving. No particular experiments have been made with her in regard to butter, but her milk has been ascertained to produce a large proportion of the richest cream.

Her offspring are much like herself. She has had four calves since she left Scotland. The first, a heifer, was dropped on ship-board during the passage; the next, a very fine bull, is now owned by Mr. J. W. HOWES, of Montpelier, Vt.; the next a bull, now nearly two years old, a very superior animal, inheriting in a remarkable degree the characters of the dam; and the next a heifer, equally as fine as her other progeny, now about two months old. The two last, together with three grand-daughters of *Ayr*, are still in Mr. PRENTICE's possession.

The origin of the modern Ayrshire breed of cattle, is a subject on which there has been some controversy. YOUATT says there was no such breed in Scotland a century ago. It is evidently an artificial variety, but, as Prof. Low observes, "authentic records are wanting to show by what progressive steps it has been moulded into its present form." The same author states, however, that at the time he wrote, 1841, they had "spread over a large tract of country, and by continued mixture with one another," had "acquired such a community of characters, as to form a *distinct and well-defined breed*."

"Tradition," he observes, "refers to an importation of individuals of the Alderney breed to the parish of Dunlop, which became first distinguished for its cows and the produce of its dairy. This tradition is almost confirmed by the similarity existing between the Alderney breed and the modern Ayrshire, which is so great as to lead us, independently of tradition, to the conclusion, that the blood of the one has been largely mingled with that of the other."

The improved variety of Ayrshire, was long known by the name of the "Dunlop breed," and there is evidence that it was distinguished and sought after sixty years ago. We are informed that ROBERT BURNS, when he resided on a farm at Nithsdale, in Dumfriesshire, introduced this stock to that neighborhood. It was (or a part of it at least) presented to him by the proprietor of Dunlop House, whose lady, Mrs. DUNLOP, was a special friend and patron of the poet. In a letter dated Nov. 13, 1788, he speaks of a heifer which he had thus received as "the finest quye in Ayrshire."*

YOUATT refers to "*Rawlin's Cow-doctor*," published at Glasgow in 1794, in which, speaking of the cattle of Ayrshire, it is said:—"They have another breed, called the Dunlop cows, which are allowed to be the best race for yielding milk in Great Britain or Ireland, not only for large quantities, but also for richness and quality. It is said to be a mixture by bulls brought

* Correspondence of Burns, Currie's edition—page 127.

from the island of Alderney with their own cows." It appears also, from various accounts, that the Short-Horned or Tees-water cattle were introduced into Ayrshire at an early day. The Short Horns were frequently called the Dutch breed in former times, but it is mentioned that Holstien or Dutch cattle from the continent were also imported to Ayrshire.* Prof. Low concludes, therefore, that—"from all the evidence which, in the absence of authentic documents the case admits of, the dairy breed of Ayrshire owes the characteristics which distinguish it from the older race, to a mixture with the blood of the races of the continent, and of the dairy breed of Alderney."

LAWRENCE, who wrote in 1809, says:—"I apprehend this milky race [the improved Ayrshire] to be the result of crossing the cows of the country with Alderney bulls, the cows, perhaps, having previously a portion of Dutch blood."

Most authorities agree with the above in regard to the origin of the present Ayrshires. It is for dairy purposes that they are considered especially valuable, and in this respect are reckoned second to none in Great Britain. Their distinguishing characteristics are given by Low as follows:

"The modern Ayrshire may stand in the fifth or sixth class of British breeds with respect to size. The horns are small, and curving inward at the extremity, after the manner of the Alderney. The shoulders are light, and the loins very broad and deep, which is a conformation almost always accompanying the property of yielding abundant milk. The skin is moderately soft to the touch, and of an orange-yellow tinge about the eyes and udder. The prevailing color is a reddish brown, mixed more or less with white. The muzzle is usually dark, though it is often flesh-colored. The limbs are slender, the neck small, and the head free from coarseness. The muscles of the inner side of the thigh, technically called *the twist*, are thin, and the haunch frequently droops to the rump—a character which exists likewise in the Alderney breed, and which, although it impairs the symmetry of the animal, is not regarded as inconsistent with the faculty of secreting milk. The udder is moderately large without being flaccid. The cows are very docile and gentle, and hardly to the degree of being able to subsist on ordinary food. They give a large quantity of milk in proportion to their size and the food they consume, and the milk is of excellent quality. Healthy cows, on good pastures, give 800 to 900 gallons in the year, although taking into account the younger and less productive stock, 600 gallons may be regarded as a fair average for the low country, and somewhat less for a dairy-stock in the higher."

The Ayrshires which have been brought to this country have varied, somewhat, in character and qualities; but not more so, we think, than the Durhams or Short Horns. As with other breeds, all Ayrshires are not equally valuable, and some importers may have been unfortunate in their selections. We are not in possession of many experiments which have been made here with this breed. It has been said that in Mr. CUSHING's trial of the Ayrshires at Watertown, Mass., they proved no better than the best "native" cows. Mr. C., however, purchased the very best cows which could be obtained to put on trial with the Ayrshires. We have never seen any account of the amount of milk yielded by the "natives;" but in Mr. COLMAN's Fourth Report on the Agriculture of Massachusetts, a statement is given in regard to the quantity given by the four Ayrshires for several months. The account for one of them is carried through a year, (the year 1837,) and it appears that she yielded 7,728 lbs., or 772 galls.—

an average of eight quarts and a third per day through the year. Is there any evidence that any of his "natives" equalled this?

We are not aware that any account was kept of the amount of food consumed by Mr. CUSHING's cows; but as the native cows were in general considerably larger, and not calculated from their form to live on less in proportion to their size than the Ayrshires, is it not fair to infer that the expense of keeping was in favor of the latter? And this circumstance might have rendered the *profit* of the Ayrshires greater than that of the natives, though they might not have afforded a larger quantity of milk.

But we know of one instance, where a bull from Mr. CUSHING's herd, which was taken into one of our best grazing and dairy districts, has been the means of greatly improving the stock for dairy purposes. We allude to the Ayrshire bull owned by Mr. CHAPMAN, of Middlebury, Vt.

The Massachusetts Society for promoting Agriculture have made several importations of Ayrshires. The first consisting of three cows and a bull in 1837. The last of four cows and a bull in 1845. The bull first imported was kept in different seasons in Berkshire, Hampshire, and Hampden counties, and the testimony of many persons with whom we have conversed in regard to the subject is, that the infusion of the Ayrshire blood from this bull, decidedly improved the dairy qualities of the stock in the various districts where he was kept.

MR. PHINNEY found that an Ayrshire cow, (one of the three first imported by the Mass. Society in 1837,) put on trial with "the best native cow selected from a lot of twenty," made a pound and a half more butter in a week, than the "native"—both being fed alike.

Besides the importations of Ayrshires into Massachusetts, they have been introduced at various times into Connecticut, New-York, New Jersey, Maryland, and Virginia, and the accounts we hear are generally favorable to them as *milk cows*.

Our own conclusion is, from what we have seen of the various breeds of cattle, that if we wished to obtain a stock for the production of the greatest quantity of butter in proportion to the cost of keep or the food consumed, we should make one trial, at least, with a selection from the Ayrshires.

ARE SHOWERS INCREASED BY FORESTS?—The editor of the Southern Cultivator states that the size of streams and rivers is considerably diminished by the destruction of forests in clearing up new countries. He states as the reason, that it "is known greatly to lessen the *fall of rain* in the region thus treated!" What effect a growth of trees can have upon the rain clouds 2 or 3 miles above, as they are swept over the country by the winds, that would not be equally produced by a field of clover, or of corn, may be difficult to decide; would it not be more reasonable to attribute the diminution in streams to the evaporation of rains after they have fallen, in the open sunshine, or to their absorption by the cultivated mellow soil; which the hard earth and dense shade of forests would not so readily favor?

WASTE OF MANURE.—The Farmers' Magazine states that it is a well ascertained fact, that in the single portion of Regent street, between the Quadrant and Oxford street, three loads of manure are dropt every day, or more than a thousand loads per annum; and the amount washed through the different sewers from the city of London into the Thames is 725 tons a year. Other cities, on the continent, by providing means for securing such waste, make the sale of manure from the cesspools a source of revenue.

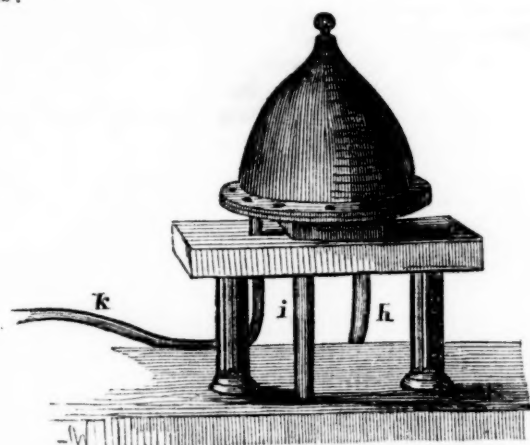
* Youatt's Treatise on British Cattle—page 130.

ELLSWORTH'S SYPHON PUMP OR RAM.

EDITORS OF THE CULTIVATOR—Many of your subscribers who noticed, more than two years since, an article in the Cultivator, over my signature, giving some account of the successful performance of an apparatus for elevating water, by means of a syphon, will probably, at this late day, be more surprised to meet with the following description of it, than they were at the first announcement of such an invention. The thing, however, is not as dead as they have reason to suppose it; but, on the contrary, has been in successful, though not extensive use, here and elsewhere, ever since the date of that communication. But in the interim it has received some practical improvements, and, for reasons which it is unnecessary to detail here, I have hitherto (with one recent exception) abstained entirely from publishing any description of it.

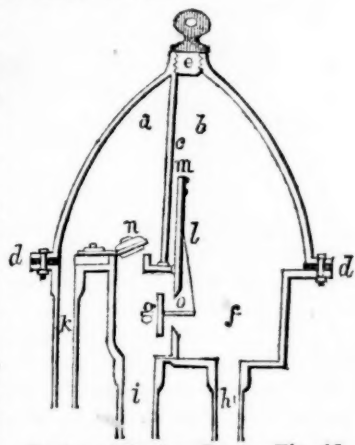
In principle, my machine consists of a syphon, combined with the well known "hydraulic ram." Previous to the date of my former communication to the Cultivator, I did not know that any such combination had been attempted; but subsequently two analogous inventions were brought to my notice, both of which, however, were essentially different from my own in construction, and are obviously useless as practical machines, the design of the inventors having been little else than to accomplish the feat of constructing a syphon that should discharge water at the curve.

The subjoined figures and description, will give some idea of the construction and appearance of my apparatus:



Syphon Pump—Fig. 14.

In the annexed sectional drawing, *a, b*, is a hollow dome, or cap, the cavity of which is divided into two distinct chambers, by the partition *c*. This dome is fastened by a flanged joint to the circular plate *d, d*. The central portion of *d, d*, is sunk into the form of a box, or chest *g, f*; that part of which, lying under chamber *a*, is roofed over by *d, d*; but communicates with *a*, by a valve *n*, opening upwards. That portion of the chest marked *g*, is still farther enclosed by an upright plate *m*, held to its place by a



Section of Syphon Pump—Fig. 15.

couple of wedges, not shown in the section. This plate has an orifice at *o*, furnished with a valve opening towards *g*; which is suspended on the spring *l*. From *f*, passes *h*, the long leg of the syphon, and from *g, i*, the short leg. In operating the machine, *i*, and *h*, are first filled with water through the screw-plug *e*; as soon as the syphon is free to act, a current commences in the direction *i, o, f, h*. This current, acting on the valve at *g*, soon overcomes the elasticity of the spring *l*, and the orifice *o*, is suddenly closed. The water in *i*, then acts with a momentum due to its weight, and upward velocity, upon the valve *n*, and a quantity of water escapes into *a*, which, when the impulse in *i*, is exhausted, is prevented from returning by the closing of *n*. The moment that *n* closes, a slight recoil of the water in *i*, allows *l* to throw open the valve *g*, and the above process is then repeated. The water which accumulates in *a*, is conducted by a curved pipe attached at *k*, to any station above the machine where it may be wanted for use. The chambers *a* and *b*, never fill with water; they confine, each, a quantity of air, which, by its elasticity, equalizes the currents through *k* and *h*. These air chambers are both indispensable to the perfect action of the machine; and if *k* and *h* are of considerable length, it will not operate at all if they are filled with water. The air in *a*, is obviously under more or less pressure in proportion to the height to which the water is elevated through *k*; while owing to the same cause operating in an opposite manner at *h*, the air in *b*, is rarified, or under less than the pressure of the atmosphere. As water under pressure, in contact with air, has the property of absorbing more or less of it, and then liberating it when the pressure is removed, the air in *a*, has a tendency to diminish, and that in *b*, to increase in quantity; but the position of the valves in this machine is such, that, when it is in action, *a*, is constantly replenished from the overplus in *b*: for the recoiling movement in *i*, above-mentioned, which allows valve *g*, to open, draws in at the same moment a few bubbles of air, from *b, f*, at *o*, which air lodges in the cavity under *n*, and is driven at the next pulsation into chamber *a*.

Persons have often attempted, by a syphon, to convey water over elevated ground, to some situation below the fountain head; but have been troubled, and often compelled to abandon the plan, by an accumulation of air in the more elevated portions of the pipe, which, in the course of a few days, has cut off the stream entirely, and rendered it necessary to refill the pipe. This is owing either to a want of sufficient fall between the level of supply and the point of discharge, or to some obstruction of the pipe, either of which causes acts by checking the current through the pipe to that degree, that the air, liberated from the water, (owing to the diminished pressure to which the water is subjected in the upper part of the syphon,) remains and accumulates in the pipe. The only remedy is to obtain more fall, or give the pipe a freer aperture, until the current has sufficient velocity to carry the air through. A velocity of between one foot and eighteen inches per second, is ordinarily sufficient to accomplish this.

The quantity of water which the machine consumes, may be, to a considerable extent, regulated by a small crank, the axle of which enters at right angles to the plane of the above section, just behind valve *g*. This crank, when turned, gives the valve more or less play, and may if desired, be made to close it, and stop its

action entirely. When the machine overdraws its supply, and stops from that cause, the syphon pipes do not empty themselves of water, (as would be the case with an ordinary syphon,) but the first few bubbles of air which enter the short leg of the syphon, break by their elasticity, the continuity of the battering column, the different portions of which immediately acquire independent movements, which mutually destroy each other, until the valves cease their motion, and the water throughout the apparatus comes to a state of rest.

At the foot of the short leg of the syphon, is a short plug fitted loosely to the calibre of the pipe, which may be drawn up a little distance into, or thrust down out of the pipe, by means of a rod attached to it. This plug is drawn up into the pipe, for the purpose of closing it, when the syphon is filled. It is also used for starting the machine, at any time, when the pipes are filled, and the water in them at rest; this is done by drawing the plug up, and thrusting it down out of the pipe pretty quickly. The downward draught of the plug, by removing the pressure of the atmosphere for a moment from the column of water in the short leg, allows the spring on the main-valve to throw it open, and the plug, passing immediately out of the pipe, allows the machine to commence its operation.

The advantages which this syphon ram possesses over the ordinary hydraulic ram, are, that it can be applied in many situations, where, from the nature of the location, the common ram could not be used, as, for instance, where the source of supply is a well, or where, as is often the case in mills and factories, a pipe may be passed down into a place to obtain the requisite fall, in which, from want of room, the ordinary ram could not be placed; that it is more commodiously situated for repair or regulation, inasmuch as it stands high and dry above, instead of below, the head of water which operates it; and that when water is required to be raised to a considerable height, the elevation of the working parts of the ram upon the summit of the syphon, divides the load to be lifted, relieving the strain upon the air vessel, and making the valves less violent in their action, and consequently more durable.

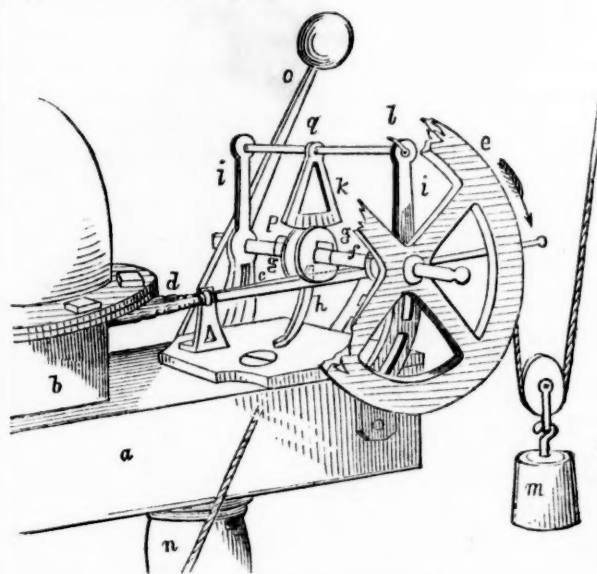
To make the machine operate well, not less than five feet fall, below the level of the supply, should be obtained, and more than twenty is not desirable. The fall may be obtained within the distance of twenty rods, or twenty feet, indifferently, and the pipes may be laid at any angle, to suit circumstances.

The sizes of the syphon pipes required for elevating water for domestic purposes, are ordinarily between 5-8ths and 1 1/4 inches diameter, according to the amount of water to be elevated, the height to be overcome, the quantity of supply, &c. Machines between the sizes of 5 8ths and 1 1/4 inch syphon pipes, consume between 1 and 7 gallons of water per minute, and can be furnished, and ordinarily set up, exclusive of pipes, at prices ranging between \$15 and \$30. The expense of pipe will, of course, depend on the quantity and size required. In all cases, before erecting them, the following data should be ascertained, as nearly as practicable, viz: the quantity of supply; the amount of fall that can be obtained below the level of supply; the distance within which said fall can be obtained; if the supply is a well, its depth to the water and the bottom; the height to which the water must be elevated, and the quantity required.

The apparatus which I have in use at this place, is employed (as mentioned in my former communication) for elevating water for stock, from a well near the farm yard. It has now a small building, about 8 feet by 12, erected over it, which also covers the well, and contains a wooden cistern above the level of the ground, of the capacity of about ten hogsheads. The machine

keeps this cistern filled with water, which may be at any time drawn through a key into a trough in the yard. The building is of wood, the frame of which is covered, inside as well as out, with matched boards, and the spacings thus formed, are filled with cut straw. This precaution (together with those of having two windows facing the south, and leaving, during the winter, the mouth of the well uncovered, so that the warmth of the water may be communicated to the air in the building) gives perfect security from the effects of frost, even in the severest weather. The well from which the water is drawn is not as favorable as many others. The supply of water never fails, but it is very variable. After the wet seasons of the spring and fall, it has furnished sufficient water to keep the machine in constant action, consuming about three gallons of water per minute for a week or two at a time; but in midsummer, the deficiency is such, that it does not operate more than three hours in the twenty-four. This irregularity renders it necessary to start the machine at longer or shorter intervals, as the supply in the well accumulates and is exhausted. The inconvenience of this frequent, although momentary attention, might in a measure be obviated by relaying the syphon with a smaller pipe; but in the winter it is desirable to make use of the whole supply, which pipes and an apparatus small enough to continue in constant action, at all seasons, would not do. The whole difficulty is, however, overcome by a fixture designed for the purpose, which was first attached to the pump last August, and has been in successful use ever since. Its object is to set the pump running, whenever, after an interval of rest, the water in the well shall have risen to a given height. By accomplishing this, the whole supply of the well is used, whatever it may be, and the pump requires no attention.

The construction of this attachment is shown in the adjacent drawing, fig. 16:



Starting Attachment—Fig. 16.

Where *a*, is one end of the frame on which the pump is erected, and *b*, that side of the pump which communicates with the long leg of the syphon; *c*, is a small rod or spindle which passes through the outer end of the chest marked *f*, in fig. 15, on a line with the stem of valve *g*, consequently when pressed horizontally inward, the spindle acts against the stem of the valve and opens it. It is obviously necessary that this rod should pass through into the pump by a perfectly air-tight joint; it is also necessary that when pressed from *c*, towards *d*, (fig. 16) for the purpose of opening the valve, it should have a tendency to return quickly out of the way of the action of the valve. These re-

quisites are obtained as follows: a spiral spring of brass wire, about three inches in length, is wound about the spindle at *d*; one end of this spring is fastened to a short tube, through which the spindle enters the pump, and the other extremity to the spindle near *d*. This spring gives the spindle the necessary outward movement, when pressed inward and released, and the admission of air into the pump around the spindle, is entirely prevented, by having the spiral spring enclosed by a thin tube of metallic gum-elastic. The outer end of the spindle is supported by a guide, which holds it in a proper line for action. On each side of *a*, near its extremity, rise two standards, *i*, *i*, through which passes the shaft *f*, which carries, on its front end, the grooved wheel *e*, a portion of which is represented in the figure as broken away, to give a view of the parts beyond. On the middle of this shaft are two circular discs, *g*, *g*, half an inch apart, through which passes, parallel with the shaft, the key *p*. This key, when the wheel *e*, is revolved in the direction of the arrow, comes in contact with the upper end of a latch, *h*, on the spindle, and if the revolution of the wheel is continued, carries the spindle in the direction *c*, *d*, about half an inch, and then allows it to fly back; but if the wheel be revolved in the opposite direction, the key merely raises and drops the latch, without acting on the spindle.

Through the upper extremities of *i*, *i*, passes another shaft *q*, to which is fastened the pendulous weight *k*. On the front extremity of this shaft is a small spur, *l*, which, when *k* hangs at rest stands nearly horizontal, though with its point a little elevated. From the inner side of that part of the rim of *e*, which is represented as broken away, projects a small pin, which, when *e* is revolved in the direction of the arrow, comes under the point of the spur *l*, and throws the pendule *k* out, towards the pump, elevating it at right angles to the position shown in the drawing, before the pin passes over the spur; but when the wheel is revolved backwards, the position of the spur is such that the pin slides over it easily, tilting *k*, very slightly, in the opposite direction. Over the wheel *e*, passes a cord *n*, on one side of which is suspended the small weight *m*, and on the other a cylindrical float which hangs in the well. The weight of the float, when out of water, is a little greater than that of *m*, and the weight of *m* is sufficient, when not counterbalanced by the float, to carry the wheel *e* around, in spite of the resistance offered by the pendule *k*, and of the force necessary to operate the spindle, and open the valve.

Now let it be supposed that the pump has recently been in action, and emptied the well, and that the float attached to *n* has descended, until the weight *m* is at the position represented; and that the pin in the rim of *e*, is situated about opposite the upper broken spoke. The water rises until the lower end of the float is immersed an inch or two; *m* then begins to preponderate, and as the water continues rising, the wheel revolves in the direction of the arrow, until the pin in its rim comes under the point of the spur *l*. The weight of the pendule then arrests the movement of the wheel for a time, and the water in the well rises eight or ten inches upon the float, before the weight of *m* is sufficient to tilt *k* far enough to allow the pin to pass over the spur. When this happens the pendule loses its retaining power entirely, and *m*, being now but slightly counterbalanced, immediately gives the wheel a half revolution, which operates the spindle, opens the valve, and leaves the pump free to run, until stopped by the exhaustion of the supply of water. In the meantime the float descends, with the level of the water in the well, bringing the parts attached to it back to their original position; they are then ready for a repetition of their action, with the next rise of water.

Previous to the invention of this attachment for starting, I have attempted, once or twice, by simpler methods, to make a float set the machine in action, by operating the plug at the foot of the short leg of the syphon; but the mechanism, though simple, was clumsy, and not reliable. The present device, however, although it has an air of much greater complexity and delicacy, has shown that its movements may be anticipated with as much certainty as those of a well made clock for striking the hour at the proper time. And if a machine does its work perfectly, that fact is ample justification for the use of every mechanical arrangement, that conduces to the perfection of its action, which it may contain.

I do not, however, recommend this attachment as one that should frequently accompany the pump; and have not taken the trouble of writing the above description of it for the purpose of advertising it, or inviting the cavils of those mechanics who may be disposed to be critical on the subject of its general utility. That which I have in use at this place is the only specimen of it, and is daily accomplishing the sole purpose for which it was invented.

ERASTUS W. ELLSWORTH.

East Windsor Hill, Ct., Nov. 30th, 1847.

Domestic Economy, Recipes, &c.

KEEPING BEEF FRESH.—Combs says the ribs will keep longest, or five or six days in summer; the middle of the loin next, the rump next, the round next, and the brisket the worst, which will not keep longer than three days in summer.

INDELIBLE INK.—This may be made much cheaper than purchased, as follows: Two drachms of nitrate of silver, added to four drachms of a weak solution of tincture of galls. Another:—Nitrate of silver, one drachm, mixed with a solution of half an ounce of gum arabic in half a pint of pure rain water. Moisten the cloth previously with a strong solution of pearl, or salt of tartar, and iron it dry.

INCOMBUSTIBLE WHITE-WASH.—Pass fine freshly-slacked lime through a fine sieve, and to six quarts of the fine pulverized lime thus obtained, add one quart of the purest salt, and one gallon of water, and boil the mixture, and skim it clean. Then to every five gallons of this mixture, add 1 lb. of alum, $\frac{1}{2}$ lb. of copperas, and slowly add $\frac{3}{4}$ lb. potash, and 4 quarts fine sand. It adheres firmly to wood or brick.

FROST PROOF CEMENT.—Mix tar with sand; it gradually hardens, and as moisture cannot in the least degree penetrate it, it will never crack by frost. This was proved by the accidental upsetting of a tar barrel on a spot of sand—the cement thus accidentally formed, remaining impenetrably hard for years, although under the rain-water spout, and exposed to all weathers.

INK SPOTS, on mahogany, may be easily removed by rubbing them with wet blotting paper, and afterwards rubbing the spot with a dry cloth.

MALAGA RAISINS.—These are all made by merely drying the large white Muscatel grape, without the addition of any ingredient. They are all raised within 2 leagues of the southern Spanish coast, and do not succeed farther inland. The Lexia raisins, used for puddings, are however, produced in the interior. They are gathered when ripe, and spread out upon the ground to dry, which usually requires 15 days, during which time they are never removed, although the drying process is retarded by the dews, which difficulty would doubtless be removed by the use of portable awnings.

TOBACCO.—Kentucky raises more than any other State.

FINE STOCK AND POULTRY OF J. B. HATHAWAY, Esq.

MESSRS. EDITORS—While on a short excursion into Canada some time since, I called to see the stock, poultry, &c. of Mr. J. B. HATHAWAY, about a mile out from St. Catharines. He is the owner of the celebrated blood stallion "Mercey," that was purchased by Com. Stockton at the sale of the stud belonging to the late William IV. He has also some fine blood mares, which, with fine stock of other kinds, renders his place worthy of a visit from every agriculturist.—In the poultry line he seems to be quite an amateur, and has gathered around him a great number of varieties. Of these I will give you a short description.

Of *Geese*, I saw in his yard, the *Chinese*, *Poland*, *Wild*, *Bremen* and *Irish* varieties. The *Chinese* have been described and figured in your pages, and from my experience with them in my own yard, and what I have seen of them in other places, I think for beauty and other qualities, they answer in full the description you have given of them. The *Poland*, have many points of resemblance to the *Chinese*, and are probably only a cross from them; but are coarser in the neck, larger bodied, and much less graceful in their motions. The *Wild* or *Canada* Goose, has been fully described in your pages; and although on the score of profit not much can be said in their favor, as they do not breed till their 3d year, yet they are certainly a great ornament in a poultry yard. As the Swan cannot be kept domesticated in our climate during the winter, requiring as she does open or unfrozen water the whole time, a very good substitute is found in the *Wild* and *Chinese* Geese. Among the ornamental varieties these stand unrivalled.

The *Bremen* geese, in Mr. H's yard, are very large, stately in their appearance, and perfectly white, both male and female; and when feathers and carcass are the main objects desired, these are a valuable variety to keep.

The *Irish* goose, is a large and coarse bird, with legs like a mill post, but I could discover nothing particularly desirable in them unless for the purpose of crossing with the common varieties. One of these is figured and described in the *London Illustrated News* of last July, as having taken a prize at the show of the Zoological Gardens; there is also figured a goose from the River Orinoco. S. A., having a small plump body with very long legs, like those of a Stork. Of this last variety I have heard of no specimen as yet in the United States.

Of *Ducks* kept by Mr. H., I saw fine specimens of *Muscovy*, and of others more common; of the splendid *white Topknots*, the *Wild black duck* domesticated, and the *Red-headed, capped Wood duck*. This last is very small, but surpassingly beautiful, and is the first instance within my knowledge of its being domesticated.*

Mr. H. keeps a number of *Golden Pheasants*, both male and female; between them and the various breeds of barn yard fowls, has a great variety of crosses; some of which, particularly the *Golden Topknots*, which are a cross between the Pheasant and the Poland fowl, are a great ornament in a poultry yard. Of this variety I have bred a good many myself the last two or three years, and were I to keep only one variety, should rather be inclined to give the preference to these above

all others. Their golden and variegated plumage, large brilliant black eyes, and liveliness of motion, invariably arrest the attention of strangers; while in the number of eggs they produce, they are equal to any other kind.

Besides the poultry varieties already enumerated, Mr. H. keeps Peacocks, Guinea-hens, wild Turkeys domesticated, &c., &c.; and I observed a pair of *Sand-hill Cranes* from Illinois, following him around his premises. These were perfectly at home among the other poultry, and when at rest, usually drew one leg up under their body, presenting quite a unique appearance. Mr. H. has also in a process of domestication with his other poultry, a lot of *Prairie Grouse*, or "Prairie Hens" from Illinois. Overhead, and basking in the sun, were nearly all the varieties of domestic pigeons; while the group was filled out by a troop of deer bounding over the yards, and an enormous Black bear chained in a corner to keep sentry over the whole.

Having a small pond of water near his house, Mr. H. has erected a line of poultry sheds on the north side facing the South, with divisions for different varieties, feeding boxes, &c.; and here, within an enclosure of perhaps two acres, all his variety of poultry live in harmony, and are a source of great pleasure to their owner and his family. And why should not every farmer add something of this kind to his other stock to render home more attractive? Why not multiply forms of beauty and sources of innocent pleasure, when they can be so cheaply obtained? A very little additional outlay would enable almost any one to increase the beauty and attraction of his place, so that his children would feel, that "there is no place like home."

The Agricultural Society of Niagara district, in which St. Catharines is situated, have a show and fair twice each year, spring and fall; the former of which is made the occasion of the sale and interchange of stock, and the hiring of farm laborers. In their list of premiums, I observed that the Society offered the premiums to the *best* horses, cattle, &c. exhibited, without designating any particular breeds. This probably has some tendency to repress those jealousies, which are apt to arise sometimes among farmers, when foreign stock is particularly commended.

The land all through the Niagara District, extending from the river to Hamilton, is in a fine state of cultivation, and bears prices varying from \$20, to \$60 per acre, according to improvements, proximity to villages, &c. Agricultural papers are extensively circulated among the more intelligent farmers, and their good effects are seen and acknowledged. One thing I could not observe but with high pleasure,—which was more common among the English and Scotch farmers,—the building of their houses some distance back from the road, and surrounding them with shade trees. This was an evidence of good taste, and an ornament of no mean value in the rural landscape. When will our farmers learn to appreciate such things?

Buffalo, Dec. 1847.

H. A. PARSONS.

RIPENING OF WHEAT.—A writer in England, for the *Genesee Farmer*, says that from the cool weather and occasional showers, wheat requires there twice the time to ripen that it does in western New-York, which he thinks is a reason the grain fills so much better than here.

* The wood-duck has been frequently domesticated. We have seen a beautiful group of them in the Bowling Green fountain, New-York.—Eds.

SKETCHES OF MASSACHUSETTS FARMING.*

AT South-Deerfield we called on Mr. T. S. SARGENT, who, besides showing us the "lay of the land" in his neighborhood, was so kind as to convey us, by way of "old" Deerfield, to Greenfield.

About two miles south of Greenfield, is the farm formerly owned by Rev. H. COLMAN, and where he for several years resided. The readers of the early volumes of the *Cultivator*, the *Genesee Farmer*, and the *New England Farmer*, will recollect his interesting communications, dated at "Meadow Banks." It is a beautiful place—we scarcely know of one which, as a residence, we should think preferable. The house is situated at the base of a handsomely rounded hill, on an elevated shelf of land, overlooking to a large extent the fertile alluvial grounds on the Deerfield river. The farm, when Mr. COLMAN owned it, consisted of 150 acres, but it has been divided, and the homestead at present only comprises 50 acres. It is owned by Mr. DAVID WAIT.

The meadows here are generally overflowed in the spring season, and a deposit is left by the water which keeps up the richness of the soil. Large crops of Indian corn and grass are here obtained. Mr. WAIT informed us that three tons of hay are usually taken per acre, and he had got nearly six tons from an acre, at two cuttings, in one season. In good seasons, with proper cultivation, he thinks fifty bushels Indian corn may readily be obtained per acre, without manure.

A little below the place just mentioned, we called at the farm of Mr. SAMUEL CHILD. He has kept for several years the Durham bull *Northumberland*, bred by E. P. PRENTICE, Esq. This animal has been of great benefit to the vicinity, and might have been still more useful if the farmers had properly appreciated him. We were told by many persons that his progeny have proved very valuable. They are thrifty, and the heifers are excellent for the dairy. We saw several calves and some other young stock that were very promising. Mr. C. has a good farm, but we were so pressed for time that we could not go over it.

Deerfield is an old town. Its settlement was commenced by the English 177 years ago. The settlers were undoubtedly attracted by the large extent of rich alluvial land here, on which the Indians had, from time immemorial, raised large quantities of corn. Capt. DAVID HOYT estimates that there is not less than 5,000 acres of rich intervalle within the limits of the town, on Deerfield river.

In answer to some inquiries, we have received a letter from Gen. EPAPHRAS HOYT—a very intelligent gentleman, upwards of eighty years of age—from which we make the following interesting extract:

"Our town [Deerfield] was first settled by the white people 1670, and at that period I believe the intervalle was cultivated by the Pocumtuck Indians, and considerable quantities of corn raised. At the close of the *Pequot war* in Connecticut, the English were suffering for want of bread, and in 1637, agents were sent from Hartford and other towns on the river, to the Indians at Pocumtuck [Deerfield] to procure Indian corn, and fifty loaded canoes, conducted by the Indians, descended the Connecticut with that article, which relieved the people from their distress.

"How long our intervalle has been cultivated is uncertain—probably for centuries before it was settled by the English. Manure is now required on these parts

not flowed by the river; and as the floods are now less frequent than formerly, manure is required in increased quantities."

The settlers here soon became prosperous, and the neighborhood was noted for its agricultural productions at an early day. But it was with great reluctance that the Indians yielded the possession of this fine region which, to them, was almost a paradise, and designed, as they believed, by the Great Spirit especially for his Red children. Their enmity was manifested by frequent and bloody attacks on the whites whom they regarded as usurpers. The town was several times destroyed, and most of the inhabitants put to death or made captive. A monument at South Deerfield commemorates an event which occurred in 1675. The Indians made a descent upon the town, and burned nearly all the houses. The settlers had raised considerable quantities of grain, which was deposited in stacks. This, the neighboring inhabitants, deemed it advisable to secure, and a detachment of soldiers and teamsters, eighty-six in all, was sent with teams to convey it to Hadley. On their return with the grain, they were ambuscaded by the Indians, and the commander, Capt. LATHROP and seventy-six men, slain. The monument was erected, with appropriate ceremonies, in 1838. A small stream which runs near it, received the name of "*Bloody Brook*," from its waters having been literally crimsoned by the blood of those who fell in this sanguinary conflict.

A still more disastrous calamity befel the town on the 29th of February, 1704. It was suddenly attacked by a party of French and Indians from Canada; every dwelling but one was reduced to ashes, many of the inhabitants put to death, and the remainder (except a few who escaped) carried away captives—112 of the latter being taken to Canada. The house which escaped the conflagration, commonly known as the "old Indian house," is still standing, and is occupied as a dwelling. It was erected twenty years before the event referred to, and is, therefore, 163 years old at the present time. It is built of wood—the frame oak, and still in quite a sound condition. In their attack, the Indians cut a hole through the outer door, which still remains as it was, and the marks of the hatchet show as plainly round the edges, as though they had been made but a short time since. The enemy discharged their guns into the house through the door and windows, and in one of the rooms, several bullets are still visible in the timbers. The attack was in the night and entirely unexpected by the inhabitants, who were quietly sleeping in their beds. Such was the case with the SHELDON family, who resided in the house; and one of the bullets now to be seen in the wall, killed Mrs. S., passing through her head, just as she started from her pillow to learn the cause of the outbreak.

The house, being a large one, was preserved by the marauding party to store their plunder, and shelter themselves till they were ready to take their departure. It is justly regarded as an interesting monument of the dire event of which we have spoken. For the last hundred years it has been in the possession of the HOYT family, and our venerable friend, from whose letter we have given an extract, we are informed was born here, in 1765.* We are much pleased to learn,

* Continued from our December number.

* A more detailed account of the tragic scenes connected with the early history of this neighborhood, will be found in the history of Massachusetts relating to this period.

that measures have been taken by the citizens of Deerfield and vicinity, to preserve the old house; and by making it the repository for Indian antiquities, and relics connected with the history of the place, render it still more an object of interest than it has hitherto been.

In Deerfield as well as in several towns in this vicinity, there has been of late years considerable quantities of broom-corn produced. The value of the brooms manufactured from this article in Deerfield, was not long since estimated at \$10,990 per annum.

We had but little time to view the country in the neighborhood of Northampton, as we only arrived there the afternoon previous to the cattle show, and the weather happened to be unfavorable. We called on WM. CLARK, Esq., who, besides being considerably engaged in agriculture and horticulture, is carrying on a large paper manufactory. He showed us some of the finest pears and grapes that we have seen. Mr. C. has been greatly instrumental in encouraging improvement in husbandry. He originated, we believe, a plan of seeding land to grass, which has been, with good success, considerably adopted. Fields occupied with Indian corn are made smooth at the last working, (no hills left,) and grass seed sown, and when the corn is harvested it is cut close to the ground with a hoe. The grass gives a good crop the next season.

Mr. HENRY STRONG was so kind as to take us in his carriage and show us a portion of the large body of intervalle here. He estimates that there is not less than 7,000 acres of this kind of land in this town. Most of it is very productive. The lots are not usually divided by fences—stakes only marking the lines between the various owners. Numerous roads or avenues are left, so that every lot is readily accessible; and a ride through these beautiful grounds, loaded with the richest crops of various kinds, is one of the most delightful that can be imagined.

A little below Northampton, the river passes between two mountains—Mount Holyoke on the east, and Mount Tom on the west; and at some former period, there appears to have been a connecting ridge between the two elevations, which has been worn away as the river deepened its channel. The barrier to the current which existed here, is supposed to have formed a lake above the mountains, and occasioned the deposit of the broad alluvion which we have described. The river until lately, made a remarkable bend at this place, called the "ox-bow." The distance round this singular turn was between three and four miles, but by cutting across a neck of land, only about twenty rods in width, a comparatively straight current was given to the water, and the old channel is filling up, which will afford many acres of excellent land.

Mr. S. H. BATES, son of the late Hon. ISAAC C. BATES, has a farm of nearly two hundred acres, most of which is excellent land. He was, at the time of our visit, engaged in removing and repairing his buildings, some of which had become old and out of order. He and Mr. STRONG purchased a Hereford yearling bull of Mr. SOTHAM last spring, which bids fair to make a first-rate animal. We have before mentioned* that the Hereford bull sent to this country upwards of twenty years ago by Admiral COFFIN, was kept here for several years.

The village of Northampton has been long and justly celebrated as one of the pleasantest in New England. There are many neat and tasteful residences, and they have generally an agreeable rural air. The "Round Hill School," once so popular, was located here. A "Hydropathic Hospital" has taken its place. We passed through the grounds belonging to the establish-

ment. The site overlooks the village, and commands besides a view of the neighboring towns, Amherst, Hadley, &c., embracing extensive landscape scenery, which for beauty and loveliness can hardly be surpassed.

FARMERS CLUBS.—Besides a state agricultural society and several county societies, there are in Massachusetts many neighborhood associations or clubs, whose object is improvement in rural affairs. Most of them are sustained with a good deal of spirit, and their general usefulness is obvious. In Conway—a town located among the hills of Franklin county—there is a flourishing society of this kind. The members hold an annual exhibition of live-stock, and agricultural and household products. The various crops are examined while standing in the field, by committees chosen for the purpose. The club has been in existence for several years, and its favorable effects are seen in the various departments of farming; animals have been improved, the yield of crops augmented,* products of household manufacture increased, and their quality improved, and a liberal and enterprising spirit generally infused.

Amherst, in Hampshire county, has a similar association. Their show, held at Amherst in November last, is spoken of as one of much interest—a very large number of people having been called together. Addresses were delivered by President HITCHCOCK, of Amherst College, and others.

COMPARATIVE ADVANTAGES OF THIS SECTION.—Ever since the first settlement of the country, the Connecticut valley has been celebrated for its beauty and fertility, and from what we have seen, we think it probable that, taking into consideration the character of the soil, the ease with which it may be worked, the variety of productions that may be cultivated and which find a ready sale at the highest prices—there is no part of the country which possesses greater advantages than this. Add to this the healthfulness of the climate, the excellence of its social and civil institutions, the beauty of its scenery, its means of easy communication, and other advantages, and where can be found a more agreeable or desirable region?

Farming in Turkey.

Dr. Davis of South Carolina, at the solicitation of the Turkish government, has gone to that country, to introduce modern improvements in agriculture. He found the only plow used in Turkey, a log, elevated at one end on two wheels, shod with iron at the lower extremity. Wheat is cut with grass scythes, raked up, and then trodden out by horses on the ground. It is cleaned by throwing it up in the wind. When ground, there is no separation of bran and flour.

There is usually no frost till January.

Under the improved culture given by Dr. Davis, the cotton crop is found to do better than in the Southern States of the Union.

Indian corn was formerly sown broadcast by the Turks, and received no cultivation. The ill-success of such culture may be easily guessed. Planted in rows, and cultivated with the one-horse plow, with which the Turks are delighted, it promises to succeed finely.

SUBSOILING.—The Mark Lane Express notices improvements made on the farm of Lord Stairs, in Wigtownshire. One part was drained, subsoiled, limed, and thoroughly pulverized, and then produced forty bushels of wheat to the acre, where only twelve were raised before.

* For a notice of the crops of Indian corn raised by members of this Club, see Mr. Clary's remarks on the discussion in relation to the "Profits of Farming," at Boston, published in our last volume, page 206.

REMARKS ON BREEDING HORSES—No. II.

EDITORS OF THE CULTIVATOR—In a previous article I insisted that each person setting out to breed horses ought, in the first place, to determine which of the various species he will produce. I intimated that every breeder should aim to produce the horses most approved in our city markets, because these command the highest prices. I also maintained that in breeding carriage horses, especially, thorough-bred stallions, of the staunchest character, should in all cases be employed. My reasons for this opinion are various. It is sufficient here to say, however, that in my judgment, from these alone can be obtained, *with any reasonable degree of certainty* the peculiar style of horse most approved for that department of service. A horse uniting force and spirit with docility and good temper—size and strength with gloss of hair and symmetry of form, and a proud, lofty carriage with that peculiarly graceful and gliding step that can seldom be obtained without “a strain of gentle blood.” I also, ~~in my former article made some distinction between a~~ *staunch* thorough-bred, and a mere race horse; I ~~intimated that~~ *pedigree, however true or high, is not the only requisite. Substance is indispensable.* This is indicated by a full round carcass—a deep flank—a wide loin, short between joints, a heavy flat bone below the knee, and a restless, resolute style of action.

Admit it all, perhaps the reader will say, but where shall we find such an one? This, I confess, is not an easy question to answer; and perhaps indicates the strongest objection to my theory. I freely admit that among all the stallions that I have ever seen, I have not found one that fully met my standard, in every particular; still I have seen many that approximated it sufficiently for all practical purposes, and among these I will name the imported horse “Consternation,” that obtained the first premium of the N. Y. State Agricultural Society, at its fair held in Utica in the month of September, 1845. This horse was imported, and is owned by C. T. Albott, Esq., who resides near Rome, in Oneida county, N. Y. He lacks that majesty and stateliness of figure, that I have described—and a little too, of that force and impatience that I so much admire in a stallion. But on the other hand, he has remarkable compactness, and a development of bone and muscle equal to any thorough-bred horse I ever saw. He is short-legged too, and has a very vigorous and hardy appearance. On the whole, I am inclined to think his stock will prove equal to that of any horse in our country. I am very glad to hear that the prejudices at first existing, among the farmers in the neighborhood of Rome, against this horse, on account of his thorough-bredness, are fast disappearing as his colts begin to develop themselves. I am very glad also to know that Mr. Albott has recently purchased a mare that he thinks every way worthy of “Consternation,” from which he expects to breed elegant carriage horses.—Knowing as I do, very intimately, the qualities of the mare, I venture to predict for him a degree of success quite equal to his anticipations.

In addition to “Consternation,” there is “Pryor” also; for whom we are indebted to H. S. Randall, Esq. at whose solicitation he was sent to Cortland by his owner, Mr. Thompson of Maryland. He is now owned by a company of gentlemen at a place called Edmeston Centre, in Otsego county. “Pryor,” I have never seen, but judging from a filly sired by him, which I own, and from the concurrent testimony of many gentlemen who have seen him, I cannot doubt that he de-

serves all the patronage his owners may desire for him.

“Tornado” is another fine horse. He is owned by Mr. Long of Washington county, and received the first premium at the recent fair of the N. Y. State Agricultural Society at Saratoga. In some respects he is decidedly the noblest horse I ever saw. His attitudes are superb—his body, neck, head, eye and ear are admirable—he fails sadly, however, in his fore leg below the knees especially in the back sinews and pastern—his color also is too light; indicating to me a slight delicacy of constitution, or a little over-fineness of breeding. Still, he is truly a fine horse. Besides these, I have heard flattering accounts of “Hornblower,” near Batavia; also, of his half-brother “Fiddler,” now in Orange county. Yet after all, it must be admitted that first-rate, thorough-bred horses are so scarce in our country, that it is difficult and expensive to procure their services. There is no reason why this should be so, except that hitherto they have not been properly appreciated by our farmers. There are but few men in our country who make the science of breeding a study—very few, even who have much pride about it.—Most farmers content themselves with the horse nearest to them, provided he is of good size and color, and his owner will insure a foal for three or five dollars. No wonder therefore, that “dunghills” should be so plenty and thorough-breds so scarce.

In many sections, however, this indifference is passing away. Farmers are beginning to see that it is more profitable to raise the *very best* horses; though the first expenditure be double—or treble even. That the most profitable horse to breed from is the one that *offers the greatest certainty of producing a first rate foal every year*, though his services may cost ten dollars instead of three. I am confident that, as this opinion prevails, thorough-breds will multiply, for there really is but little certainty in breeding from any other than a thorough-bred stallion.

I am well aware that there is a prejudice against thorough-breds to be overcome. This prejudice has arisen, partly from the false pretensions to thorough-bredness set up by many that are not more than a quarter or one-eighth in the blood. But much more from the fact, that the thorough-breds heretofore introduced into our country have been quite unworthy representatives of their species—being, for the most part, little, gaunt, spindle-legged animals, that in consequence of some defect of constitution, or over-fineness of breeding, have broken down in training, and been sold for a song. Farmers do not generally know the fact, that the genuine, old fashioned thorough-bred horse, possesses greater power of endurance, greater energy, and in proportion to his weight of body, a greater development of bone and muscle than any species of horse in existence.

But I have promised to say something about saddle horses, trotting horses, and draught horses.

A truly elegant and valuable saddle horse cannot be obtained without breeding him expressly for that purpose. He should be at least three-parts bred, *and should be used under the saddle exclusively.* But as the demand for these horses is not great, I can hardly commend them to the attention of breeders.

Trotting horses are in far greater demand, and always bring a high price. It is very profitable to breed them. They are of all shapes—all sizes—all species. Some have sprung from Canadian crosses; some from

Indian ponies; some from the wild herds of the prairies; some from the Messenger and Duroc families, and some from three-quarters, and seven-eighths, and even fully bred stallions. Still, they are not altogether chance productions. Some families are uniformly good trotters: and I think the true way of improving the trotting horse of our country, is to select the hardiest, fleetest mares of these families and send them to thorough-bred stallions. This will give the bottom so much needed. In a match of two or four miles a horse of bottom has greatly the advantage, over even a much

fleeter competitor, that lacks it. The former keeps steadily on his gait, rather increasing his speed as he goes; the latter "breaks up on the back stretch," and continues to break at intervals, until his better winded competitor "mends the gap" and wins the heat. I have no doubt that high breeding, will in a few years, be considered as necessary for the trotter as for the runner. But my article is again too long. In my next I will notice the Norman and Morgan horses.

Respectfully, &c., J. B. B.

Syracuse, Jan. 22, 1848.

CULTURE OF THE POTATOE.

EDITORS OF THE CULTIVATOR—There have been a thousand and one attempts to explain the cause or causes of the potato rot, and as many remedies suggested, most of which, in whole or in part, appear to be unsatisfactory.

I am not about to theorise upon this subject, but shall simply deal in matters of fact, as they occur under my management of this crop *on my soil*, leaving the reader to judge for himself whether the same management would be attended with like success with him.

There is one system of management by which I have thus far never failed of raising fine, mealy and sound potatoes, that keep well the season round. I select a piece of green sward land, of sandy or gravelly soil, that has never been subjected to a course of manuring and cropping; (a piece of pasture land is best, and if it never bore a crop of potatoes it is still better;) and plant it as early as possible to potatoes *one year*, without manure. A table spoonful of plaster, or a handful of unleached ashes, or a mixture of both, put into the hill at planting time, will well repay the expense. It imparts considerable vigor to the growth of the crop in the fore part of the season, and also increases the yield somewhat. It will be observed that I do not prescribe this application in the shape of a nostrum, to prevent the rot, for it is my impression that applied or not applied, is all the same as to the soundness of the crop.

In digging them in the fall, I am careful to dig when the land is tolerably dry, and there is a prospect of fair sunshine. They are dug out of the ground in the forenoon, and lay scattered about to dry in the sun till two or three o'clock in the afternoon, so that no moist dirt shall adhere to them, for I find that potatoes put into the cellar in a damp state, are much more likely to rot than those which are put in dry. I also delay digging them as long as possible, but by no means so long as to encounter a hard freeze by which the potatoes are affected, for in that case they will surely rot. The bottom of my potato-bin is made of plank, raised up the thickness of slit work from the bottom of the cellar, and the sides of narrow pieces of boards, not quite tight together, which admits of a circulation of air on all sides. The bin should not be more than three or four feet wide for the same reason. Potatoes keep best in my cellar not to touch the bottom or the walls on the side, as dampness is imparted to them from both these causes. For this reason the back side and ends of the bin should be of boards as well as the front and bottom. Every clear, cool morning, until the freezing weather of winter sets in, the cellar doors are opened two or three hours for ventilation. A thing which should always be practiced where a considerable quantity of vegetables are stored away.

It is true that potatoes will not yield 4, 5, or 600

bushels to the acre, on land of moderate fertility, without manure; but I get 150 to 200 bushels of excellent quality, and by using care in gathering and storing them, they keep well through the season.

The first year that the potato rot made its appearance in this section, I planted three rows wide of potatoes around a cornfield of eight acres, for the purpose of turning the horse more conveniently in working among the corn. The field was a little broken in surface, and embraced several qualities of loam, some rather coarse gravelly spots, some more sandy, and some, through the hollows, rather compact and fine-grained. I had the curiosity to mark the result upon these three rows of potatoes through the season. The vines blasted and died off early in the season, where the rows encountered the compact and moist soil in the hollows, while those on the gravelly and sandy spots held green and thrifty, and in harvesting were found to yield more in quantity and better in quality, than in the hollows, and more fertile parts of the field. The result was entirely at variance with all my former experience in growing this crop. I had previously always selected such kind of soils as these rich and moist, but not wet, hollows, obtaining from them a large yield and good quality of potatoes.

Last spring I planted two bushels of my table potatoes in the kitchen garden, which had been heavily manured, partly by way of experiment, and partly because I had no particular use for the land. In digging them this fall I found, as I expected, not one quarter of them sound, while seed potatoes taken from the same bin, and planted on a piece of pasture land, without manure, where my main crop grew, gave me a return of perfectly sound potatoes. I leave your readers to draw their own conclusions, whether or not these two cases which I have given, go to substantiate the method of growing this crop which I have recommended.

F. HOLBROOK.

Brattleboro. Nov. 25, 1847.

TRANSMUTATION OF WHEAT.—The Ohio Cultivator says that a correspondent, who does not complain of his wheat turning to chess, says that it has been turning to timothy; and what is still more unaccountable, he has had much difficulty in preventing his *corn* and *potatoes* from turning to *weeds*. A writer in the same paper says when the growth of the wheat is good, the chess is stunted, small, and escapes notice; but when the wheat is killed, it stands out far and wide, and that he has counted 78 stalks of chess from one seed, showing an increase of 1560 fold.

BRILLIANT TOAST.—Among the toasts at the celebration of the Middlesex (Mass.) Agricultural Society, was the following: "*The mighty powers of mud.*"—"Some men profanely swear by it; we farmers more piously prefer to thrive by it."

HOT-AIR FURNACES AND AIR-TIGHT STOVES.

EDITORS CULTIVATOR—I have noticed the remarks in the Cultivator during the past year, by GEO. GEDDES and others, on the advantages of Hot-Air Furnaces. Having used one in my own house for the past seven or eight years, constructed in a manner precisely similar to those described, I can endorse with confidence all, or nearly all, that has been said in their favor. There are, however, some defects which should be known. These defects are not merely attached to poorly constructed ones, for mine was a good one with a large stove and eight drums, well put together so as not to smoke.

The advantages, as have been before stated, are chiefly, the facility with which large wood, four feet long, may be used without cutting or splitting; keeping up only one fire for several rooms; freedom from dirt and ashes, from stoves and fire-places; saving in room; freedom from cold currents through door-cracks, &c.; and uniform temperature day and night.

The disadvantages are, the furnace, unless in a very large cellar, so as to be entirely separated by partitions from the rest of the cellar, heats it too much, usually causing the speedy decay of apples, &c.; it occupies as much room below as it saves above stairs; the wood being heavy, but few women can lift it, and hence a man must be at hand; the fire being away, out of sight, is apt to be forgotten and neglected till too low; after standing and absorbing moisture during summer, the plaster and brick-work throw off an unpleasant and damp smell into the rooms for some days after the fire is first commenced in autumn; the cost, in no case, of a good furnace, can be much less than a hundred dollars. Not one of the least objections is the difficulty of regulating the heat properly in rapidly changing weather, as from cold to warm, from warm to cold, or from calm to windy. Large sticks six inches to a foot in diameter will be an hour or two in getting thoroughly on fire; and when once on fire, continue burning half a day or more. In the meantime there may be a considerable change in the weather, in which case the rooms may be greatly over-heated, or become too cold to be comfortable. It often happens that a fire is built up for the night, while the weather is calm; a fresh wind springing up in the night will rapidly diminish the heat of the rooms; or, if the weather is windy when the fire is made, and the wind then subsides, the heat soon becomes oppressive. It is found to require twice as much wood in a high wind, at 25 degrees, as in a calm at zero. Wind also changes the course of the ascending hot air in the pipes, warming those rooms chiefly which lie in a direction from the wind, often sweeping the air from the windward rooms down the hot-air pipes, and out of the air chamber through the feeding pipe. This is a serious inconvenience. It may indeed be obviated by properly adjusting the registers, and by two or three cold-air feeding pipes on opposite sides of the furnace, to be closed or opened as the case requires; or a new fire may be built of small wood, if the weather suddenly becomes windy; or, on the other hand, if it suddenly becomes calm or warmer, the fire may be smothered with ashes, or lessened by shutting the fire draft. But all these require much attention; more than farmers generally are willing to give; and would be a grievous tax on a housekeeper where no man is at hand.

Every establishment, therefore, which cannot keep an attentive hired man always at hand, should not be encumbered with a furnace. But in a large house, where such care can be constantly given, and where there are as many as five or six rooms to be constantly heated, a good furnace will be found altogether the

most convenient mode. It is also just the thing for large schools, where many apartments are in daily use, obviating the care and interruption of replenishing fires in the separate rooms; or for hotels, and large public buildings generally.

For small houses, nearly all the advantages of the hot-air furnace are secured by the use of the best air-tight, self-regulating sheet iron stoves. The cost of two or three of these is much less than of a furnace; they are always at hand and easily fed; they consume less wood by nearly one-half, as I have amply proved by long experience with both; and they will maintain a fire as long during the night as a furnace. The very common objection to the furnace, that every part of the room is heated alike, and that every person whether thinly or warmly dressed, must endure the same heat; or those who have been all day riding in the cold can have no warmer fire than others, is wholly obviated by the air-tight stove. So rapidly may a room be heated with one of these, that five minutes are scarcely needed in any case; while the self-regulator, properly adjusted, will preserve an equable temperature for a long time. With an additional improvement—that of inserting a transparent plate of mica in the regulating valve, the light from the fire would be thrown into the room, and the advantage so much prized by many, of seeing the “cheerful blaze,” would be at least partially attained.

With one of the larger sized air-tight stoves, (Race’s \$14 ones,) I am enabled to heat a family room and three adjacent sleeping apartments, more comfortably than I could formerly with a furnace; for which one cord of good wood will last about one month of average winter weather; and my fruit and vegetables now keep well in the cellar.

But air-tight stoves have their difficulties. These are two in number, namely—the sudden puffs of smoke or explosions; and the inconvenience of pipes choked with soot, or dripping with pyroligneous acid. The first never takes place except when the stove is closely shut. Impure carburetted hydrogen from the burning wood mixes with the air in the stove, and then taking fire causes the explosion. This is usually only a puff of smoke, but sometimes it has been sufficiently strong to lift the small cast iron plate which covers the hole in the top of the stove. The explosions may be obviated by adjusting the regulator so that it shall not entirely close, till the wood is half consumed. The carburetted hydrogen will not collect while a slight current of air is sweeping through the stove, and rarely except when the wood is in its early stages of combustion. The dripping of pyroligneous acid is prevented by reversing the joints of the pipe, those above being inserted into the next ones below, rendering it impossible for the liquid to escape. To prevent the pipe becoming soon choked with soot, nearly all should be perpendicular or nearly so, so that by knocking on its sides, the adhering soot may fall. One of my stoves was at first fitted with seven feet of horizontal pipe; but in five weeks it was perfectly choked with soot. The stove was then moved, and the pipe made vertical. By knocking down the soot once a fortnight, no difficulty from this source is now experienced. Where the draft is considerable, the soot does not so rapidly accumulate; hence in using another stove, less perfectly made, no inconvenience was found either from dripping or soot, for some months.

A self-regulating stove, made of Russia sheet-iron, will last, it is believed, under ordinary circumstances, not less than fifteen years.

HORTICULTURAL DEPARTMENT.

CONDUCTED BY J. J. THOMAS.

Downing's Fruits and Fruit Trees,

WITH COLORED PLATES.

THIS is truly a splendid and valuable work. It contains seventy colored plates, with representations of eighty-six different varieties of fruit. *Seventeen* of these are apples; *twenty-four*, pears; *twenty*, cherries; *two*, apricots; *seventeen*, plums; *three*, peaches; *one*, raspberry; and *one* strawberry. They are the finest style of lithographic prints, colored by hand. In nearly all cases, they are remarkably accurate delineations of nature; and they have the excellence of being entirely free from the over-coloring which is so prevalent among illustrated works of the kind. Gorgeous daubings of the most brilliant paints, are infinitely inferior to the softened lights and shades of the skillful copier of nature. As paintings, however, they will not take the highest rank; neither indeed should they; for in that case it would be necessary to represent them in too strong a light, relieved by too heavy shades, to be well adapted to close viewing, as in a book held in the hand. The light and shade is mild, so that the true colors of the specimens are not obscured by heavy shadows.

There is much uniformity in the excellence of the coloring throughout the volume—the accuracy with which the peculiar shade of color, of nice distinctive tint of each variety is given, in most cases, is admirable; yet in the copy before us, we are particularly pleased with the figure of the Columbia, Lawrence's Favorite, and Duane's purple plums, the Bilboa and Marie Louise pears; and that of the Fastolf raspberry is extremely fine and natural, the soft pulpy juiciness of the berries being quite conspicuous. On the other hand, we should regard the figures of the Bloodgood and Bezi de la Motte pears, and Bullock's pippin, though good pictures, as of a greener hue than is usually found in the real specimens. The drawing of Baumann's May, appears to have been made from an immature specimen;—when fully ripe, this cherry is nearly black, and comparatively round and plump, the angles disappearing as it ripens. The Seekel pear hardly exhibits enough of the brownish russet which marks this variety. The Winter Nelis, also, we should think, should be more generally overspread with the russet streaks, found on the average of specimens.

In addition to the plates, this volume has all the outline figures, and all the corrections of the seventh common edition. The typography and binding are of the highest order; and the work taken altogether is unsurpassed. We should have been glad if the binder had relieved us from the necessity of so frequent a resort to the paper-knife.

Quince Stocks for Pears.

Much attention has been lately directed towards the use of the quince as stocks for the pear. The former opinion, of the extremely short duration of pear trees on the quince, seems to have been in part, founded in error. The late S. G. Perkins of Brookline, Mass., had perfectly healthy and productive trees, which had been transplanted more than twenty years. T. Rivers states that at the celebrated Chiswick Garden, England, there are trees twenty-five years old, which are "pictures of good health and fertility." And we are assured on good authority that in Germany there are healthy trees of far greater duration.

A great advantage in the use of the quince stock, is early productiveness, only two or three years being

required from the time of grafting before the tree commences bearing. Another, is the little room they occupy, from the character of dwarfs which they assume, and they may be planted within ten feet of each other. Hence they are admirably adapted to limited gardens, where it is desired to cultivate for crops the intervening soil; for branching within a foot of the ground, and rising only eight or ten feet high, they shade the surface and exhaust the earth but slightly. They, however, need a rich soil and good cultivation, and are hence unfit for the grassy orchard, where such treatment is not given. And yet we can by no means say that they are not in some localities, well adapted for market products; for an eminent English cultivator, T. Rivers, of Sawbridgeworth, who has had abundant experience in their cultivation, had last summer a plantation of no less than 1500 trees of the Louise Bonne de Jersey alone, for supplying the London market, and intended the past autumn, to increase the number to 3000.

All pears, it is well known, do not succeed equally well when treated in this way. A large portion of the varieties appear to be but little changed in size and quality; but a few are vastly improved, and on the other hand some do not succeed at all, when grafted or budded directly upon the quince. Experiments are much needed; and with the hope of encouraging their increase, a few results, with some of the most celebrated varieties, are given.

The *Duchesse d'Angoulême* has long been known to be incomparably improved on quince, and its culture at present is hardly attempted by good cultivators on the pear. *Beurré Diel* is much higher flavored; Rivers says "this pear seldom ripens well on the pear stock; on the quince the fruit are larger, more handsome, of perfect flavor, and they invariably ripen well." He also states the following fact relative to the *Beurré d'Aremberg*:—"Of this, I ate my best specimens about the middle of last April; they were vinous, juicy and delicious, from plants on the quince. Specimens from plants on the pear stock, kept only till the end of February." It has also been found in this country to succeed finely on the quince. Of the *Glout Moreau* his report is highly favorable:—"Grows freely on the pear stock and blooms freely; but seldom bears any clear fruit; they are generally full of spots, and often do not ripen at all kindly. On the quince stock it bears clear handsome fruit, which invariably ripen, and are very highly flavored." M. P. Wilder, of Boston, says, "Few varieties succeed so well on the quince as the *Glout Moreau*; a tree of which, in my own ground, annually produces a barrel of large, perfect fruit. In growth, it is more luxuriant on the quince." Manning says of the *Easter Beurré*, "it bears abundant crops, grafted either on the pear or quince;" but Rivers asserts that "on the pear stock [in open ground] it is a most crab-like pear, bearing but very seldom and never ripening; on the quince it bears well, is of high flavor and always ripens in April and May; it is, however, inclined to be gritty at the core, the only pear I have found to be so on quince stock." This unfavorable report of the *Easter Beurré*, when on pear roots, we fear will be found to apply to a considerable extent in most localities here. It is on this account that M. P. Wilder excludes it from his list of the "five best winter pears" in the *Horticulturist*; although he remarks it succeeds better on the quince. A writer in the *Prairie Farmer* states, however, that he has found

trees of this variety usually liable to be broken off by wind at the juncture of the quince and pear. Of the *Wilkinson*, Manning remarks, "If grafted on the quince, it is smaller, more prolific, higher flavored, and a brighter red cheek, than if grafted on the pear stock." A remarkable change for the better was found by T. Rivers to take place in the *Fortunes*, which was "a perfect crab" from trees on the pear stock, but very melting and juicy, and a good pear on the quince. The *Jargonelle* and *Passe Colmar* were both found by this distinguished cultivator, to be greatly improved in quality. No variety however, appears to be more at home on the quince than the *Louise Bonne of Jersey*, whether in this country or in England. "This," says Rivers, "of all the pears I know, is most benefitted by working on the quince. My specimen tree, on a pear stock, now twelve years old, has scarcely borne a dozen good clear fruit, and some standards of nearly twenty years growth canker at the tips of their shoots, and their fruit is, in most seasons, spotted and misshapen. On the quince how different! I have trees from three to five years old; full of fruit, and these have hitherto every season been large, remarkably high colored, beautiful, and of the highest flavor." Cheever Newhall, of Dorchester, Mass. states, that while the *White Doyenné* succeeds well at that place on quince, it is worthless on pear stock; the *Madeleine* is fine on its own roots, but cracks, and is astringent and worthless on the quince. The *Golden Beurré of Bilboa*, according to J. M. Ives, of Salem, succeeds well on a quince stock, growing "large and beautiful."

Besides these varieties already named on the authority of T. Rivers, as being improved on the quince, he gives the names of the following in his article on this subject in the *Gardener's Chronicle*, from which the preceding remarks have been quoted:—

Beurre d' Amalis,	Crassane,
" Ananas,	Doyenne Gris,
" de Capiaumont,	" White,
Bonchretien, Williams',	Fuchesse d'Orleans,
Chaumontelle,	Forelle, or Trout Pear,
Citron des Carmes,	Franc Real, Summer,
Colmar,	Gratioli of Jersey,
Colmar d'Aremberg,	King Edwards',
Comte de Lamy,	

In the same article, the following are given as not succeeding well on the quince; unless double worked, which is done by budding or grafting some freely growing variety on the quince, and then re-grafting the "refractory sort" into the pear-shoot thus obtained.

Bergamot, Autumn,	Jean de Witte,
Gansel's,	Marie Louise,
Beurre Bosc,	Monarch, Knights',
" Rauz,	Nelis, Winter,
Broom Park,	Ne plus Meuris,
Brougham,	Saint Marc,
Crassane, Althorp,	Seckel,
" Winter,	Suffolk Thorn,
Dunmore,	Thompson's,
Hacon's Incomparable,	Urbaniste.
Inconnue, Van Mons, 175.	

The object of this double working is to enable all these varieties to partake of the improvement wrought in their quality by working on quince.

There are a few varieties, in which, we perceive "doctors disagree," probably from a difference in climate and other influences, and which would seem to indicate that a successful trial on quince in one country or region, may not certainly prove its fitness for another. For instance,—the *Citron des Carmes* (or *Madeleine*) is named in the first list, as among pears improved on the quince, although Cheever Newhall of Mass. found it "astringent and worthless" when so treated.—Again,—*Williams' Bonchretien* (or *Bartlett*) is named in the same favorable list; but in Manning's *Fruit Book*, (p. 43.) this variety is cited as an example of pears which do not thrive well directly upon the quince. On the other hand the *Winter Nelis* is placed in the

second or unfavorable list; M. P. Wilder however, remarks that its growth is stronger on the quince to which it seems well adapted. The *Beurré Bosc* is widely known to be of difficult growth on the quince; Rivers says it is "exceedingly refractory,"—and that he doubts its success when double-worked. J. M. Ives of Salem, states, however, in the *Horticulturist*, that he has grown this pear *directly* on quince for many years, and that it grows luxuriantly, but bears poorly; but that when double-worked it does admirably.

It is hardly necessary in this article, to remark that the common quince is of too slow growth for pear stocks; the variety known as the *Portugal Quince*, or some other equally vigorous, being necessary.

To insure safety from the *borer*, S. G. Perkins had his quince-rooted pears examined regularly twice a year, once early in summer, and once at mid-autumn; his gardener going over six or seven hundred trees in a day—a comparatively light task.

Grafting.

Since root-grafting has been so generally adopted for the propagation of the apple, a saving of valuable time is effected by performing the work within doors during the latter part of winter. It is hardly necessary here to repeat the directions so often given for this operation, yet a few hints may be of use to some. After many years trial, we are satisfied that the application of small wax plasters, closely bound, is far more certainly followed by success, than their omission, or the mere use of tow ligatures. In some seasons, the difference may not be strikingly apparent; but in others, the losses from the neglect of the wax, will more than triple those with its use. Whip grafting, with tongues, being usually adopted, the tongues should be of sufficient size and thickness to interlock with firmness, requiring considerable force to separate them. Hence large roots, and thrifty, well ripened scions, are indispensable. From repeated observation, it also appears, that grafted roots succeed decidedly better in soils with a considerable portion of clay, or in strong loams, than in lighter soils, and especially those of a gravelly nature. Where portions of the root six inches long, or nearly the whole root of a single tree are used, the growth is better or more certain than when cut into smaller parts. In packing them away in boxes, after having been grafted, wet saw-dust will be found most convenient, being much lighter and more portable than sand, and quite equal in other respects.

Grafting the *cherry* can hardly be done too early. The writer has never succeeded better, (losing scarcely a graft in a hundred,) than when the work has been done while the snow yet remained on the ground, using a furnace or chafing dish to soften the wax. It is important also that the plum be grafted before the swelling of the buds.

In all kinds of grafting, it is very essential that the freshly cut faces of the graft and stock be brought into as close and perfect contact as possible, that the sap and juices may uninterruptedly pass from one to the other. Hence a sharp knife, to make a smooth, clear face on each, becomes indispensable. In cleft-grafting, however, (a mode which has some advantages over all others,) as it has been usually performed, the *rough, split surface* of the stock comes in contact with the graft, and the union is imperfect. We notice in the last number of the *Horticulturist*, a description of a newly invented implement, called the *Stock-Splitter*, to obviate this difficulty. It makes a smooth, clear cut, through the bark and wood together, without splitting the surface, and besides being more expeditious, forms a more perfect fit between the two united parts. This implement is highly commended by the editor of the

Horticulturist; and the writer can also add his testimony in its favor, having for many years used one of precisely similar operation, but of much simpler construction, and which was figured and described in the *Fruit Culturist*. As it appears never to have been much used, we append a figure and description for the benefit of our readers. The thin cutting blade A, is about two and a half inches long, set back at an angle of a hundred and twenty degrees with the shaft and handle B, which moves it as a lever, in cutting; and when shut, reaches the concave bed or groove, sheathed with leather, in the wooden piece, C. These



Stock-Splitter—Fig. 17.

two pieces, with the connecting pivot, constitute the whole implement. The angle which the blade forms with the handles, causes an oblique or *sawing* motion to the edge of the blade, which renders it far more effective in cutting, than the one described in the *Horticulturist*, where the blade acts directly, not obliquely, by means of a lever and wheel. This tool is used in cutting off the heads of the stocks, preparatory to grafting, as well as in forming the slit of the graft; and the quickness and ease with which a tree an inch or more in diameter is severed at one stroke at right angles, is astonishing to one who first tries it—a slight pressure with the left hand against the top of the tree being given at the same time. A blacksmith will make the blade in half an hour, and another hour's work will complete the implement. The writer has used one extensively for a dozen years, and it will apparently last as much longer, without any repair.

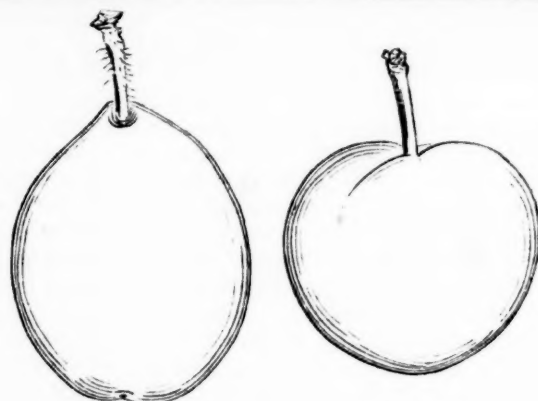
Early Fruits.

THE PRIMORDIAN AND CHERRY PLUMS.—The value of very early fruit is indicated by the eagerness with which the first ripening specimens are plucked from the early trees, or the high prices which such fruit always commands in market. A variety, even if second or third-rate in quality, becomes desirable, if but a few days in advance of all other sorts. There are, we believe, no plums which nearly approach in early maturity the two we have here figured.

THE WHITE PRIMORDIAN, *Jaua* Native, or *Early Yellow*, appears to have been much underrated, or at any rate, its merits entitle it to a far more extensive cultivation. It appears to be the earliest known variety; its quality is good, certainly equal to some later ones, whose large size and showy appearance have given them a high reputation; and it is a most abundant bearer. The tree is of slender and slow growth, and of rather difficult propagation, which is perhaps one reason it is rarely to be found in nurseries.* With this exception, it appears to be quite superior to the Cherry plum—it greatly excels it in productiveness. Fully grown trees are usually loaded with as heavy a crop as the branches can bear.

The fruit is small, the figure indicating the size of an average specimen, somewhat obovate, slightly marked, surface smooth, greenish yellow at first, becoming a fine clear yellow when fully ripe; stalk half an inch long, slender, downy, in a very narrow rather deep cavity; flesh yellow, moderately juicy, delicate in texture,

* It may be possible that this plum does not succeed so well in other places as in Western New-York, to which these remarks apply.



Primordian.

Cherry Plum.

ture, of a very pleasant sweet (no acidity) but not high flavor; stone small, parting freely from the flesh. Branches slender, quite downy. It ripens at or a little before the usual time of wheat harvest, or in the early part of 7 mo. (July.)

THE CHERRY PLUM, *Early Scarlet*, or *Myrobolan*, is rather smaller than the Primordian, and just perceptibly later; the tree is a freer grower, and the fruit more showy, but in all other particulars it is inferior. It is nearly round, color bright red, flesh greenish yellow, very juicy, rather coarser in texture than the Primordian, subacid, pleasant flavor, but not rich. It ripens during the latter part of wheat harvesting. Under ordinary management, it is so poor a bearer as to be scarcely worth cultivating, even by the amateur; but we are informed in the *Horticulturist*, that Samuel Reeve, of New-Jersey, raises abundant crops every year, by retarding the luxuriant growth of the tree by transplanting them every five or six years; and hence root-pruning is recommended for the same purpose. There are some doubts, however, whether over-luxuriance is always the cause of its sterility, as old trees, growing in western New-York, as they advanced in age and decreased in thrifty growth, still remained nearly barren.

Profits of Orchards.

The past season has been remarkable for the inequality of the apple crop; for while in some parts of the country it has been a total failure, in others, orchards have been uncommonly productive. Perhaps nowhere have they yielded more abundantly than in the western part of Wayne County, New-York, and the adjacent region. The following are not extraordinary examples, and all occurring within about one mile of the residence of the writer. On one farm, one acre of ground is occupied chiefly with large trees of the Rhode Island Greening. The product was two hundred barrels, after reserving a sufficient quantity for domestic use. The price was sixty-two and a-half cents per barrel, and the aggregate amount one hundred and twenty-five dollars. Deducting twenty-five dollars for picking and carting to market on the Erie canal, which is more than the actual cost, we have one hundred dollars the nett proceeds of a single acre. It would require but a small farm, at this rate, to yield a greater revenue, than the salary of the Governor of the State.

On another farm, half a mile distant, there are four and a-half acres of orchard, with vacancies nearly equal to one acre. The proprietor sold six hundred and fifty barrels, for four hundred and six dollars, besides reserving a supply for his own use; which is very near the amount per acre in the former instance. In this orchard, one tree of the Rhode Island Greening, bore forty bushels; and two neighbors had each a tree of the same variety, the crop from each exceeding forty bushels, or ten dollars per tree.

Such profitable returns have caused a great variety of new orchards to be set out, in addition to many within a year or two past. But the market will not be soon glutted; for while a few only keep their newly planted orchards well manured, cultivated, the soil mellow, and the earth round the trees entirely free from grass, weeds, or any sown crop; the great majority plant out their trees in meadows, pastures or grain fields, to be overrun with grass and weeds. A hill of corn thus treated would produce nothing; and the young trees, (which require as good treatment as corn,) make but little growth, if indeed they happen to live through the treatment they receive. Thus, instead of yielding a profitable return, as they might do in five years, they are not likely to bear much in less than fifteen or twenty. It is true that many who pursue this course, are not aware of the disadvantages under which they are working; although they expend twenty-five or thirty dollars for trees, they "can't any how afford" to take an agricultural or horticultural paper, which would show them a better way. This is, emphatically, wasting at the bung, in order to save at the tap.

White-wash on Fruit Trees.

A. J. DOWNING and others, have given it as their opinion, that an injurious effect is produced on fruit trees by the sun's rays, when they strike the body and limbs with direct force, while the sap is frozen, or when there are sudden changes from cloud to sunshine. The writer has not had sufficient opportunity for comparison to form a positive opinion in the case; but as it has been suggested that the application of white-wash to trees, would have the effect to refract the rays of the sun, and thus prevent the heat being communicated to the trunk and branches, it is proper to notice any experiments which have a bearing on the subject.

In the January number of the *Horticulturist*, the editor states that he took two thermometers, which agreed perfectly; and to the bulb of one of them he applied a thick coating of white-wash and allowed it to become dry; the other was left as usual. The result is given as follows:

"After being exposed for an hour to the full sunshine, the naked thermometer indicated 97°—the thermometer with the white-washed bulb only 79°—being a difference of 18°."

The Columbia Pear.

Will you or some of your readers give through the *Cultivator*, the history of the Columbia or Columbian Virgalieu pear?—its history, good qualities, size and time of ripening. Also why it is, that when we have such pears as the Dix, Marie Louise, Dunmore, &c. we so rarely see their names in the list of the best. I am well aware that the largest is not always the best, but I should think they ought to take the preference when they are equal in flavor and productiveness.

THOS. R. PECK.

West Bloomfield, Ontario Co., N. Y.

A. J. DOWNING, in his *Fruits and Fruit Trees*, says of the Columbia—"This splendid American pear is one of the most excellent qualities, and will we think, become more generally popular than any other early winter fruit. It is large, handsome, very productive, and has a rich, sugary flavor, resembling, but often surpassing, that of the Beurré Diel. The original tree grows on the farm of Mr. CASSER, in Westchester county, 13 miles from New-York." It is spoken of as very productive. It is described in the work above referred to as follows:

"Fruit large, regularly formed, obovate, usually a little oblong, and always broadest in the middle. Skin

smooth and fair, pale green in the autumn, but when ripe, of a fine golden yellow, with occasionally a soft orange tinge on its cheek, and dotted with small gray dots. Stalk more than an inch long, slender, slightly curved, placed towards one side of the narrow depression. Calyx of medium size, partially open, set in a very shallow basin. Flesh white, not very fine grained, but melting, juicy, with a sweet, rich and excellent, aromatic flavor. November to January."

Select Varieties of Fruit.

In the November number of the *Horticulturist*, the editor gives the following lists of fruits, "unimpeachably good in all soils"—"which have won a large vote by their uniformity of character."

Apples—9 varieties.

Early Harvest,	Baldwin,
Early Strawberry,	Ladies' Sweeting,
Williams' Favorite,	Rhode Island Greening,
Gravenstein,	Roxbury Russet.
Porter,	

Pears—9 varieties.

Bartlett,	Louise Bonne de Jersey,
Beurre Bosc,	Seckel,
Dix,	Beurre d'Arenberg,
Fondante d'Automne,	Winter Nelis.
Gray Doyenne,	

Plums—8 varieties.

Bleecker's Gage,	Jefferson,
Coe's Golden Drop,	Lawrence's Favorite,
Diapree Rouge,	Smith's Orleans,
Green Gage,	Purple Favorite.

Cherries—8 varieties.

Bauman's May,	Downton,
Black Tartarian,	Bigarreau,
Black Eagle,	Elton,
Downer's Late,	Mayduke.

Peaches—8 varieties.

Early York,	Bergen's Yellow,
George IV,	Royal George,
Grosse Mignonne,	Oldmixon Freestone,
Coolidge's Favorite,	Large White Cling.

Apricots—Moorpark, Breda.

Nectarines—Elruge, Early Violet.

We believe the preceding list to be nearly as perfect as can be furnished with the present amount of experience in this country. Such fine varieties as the Newtown pippin, Fall pippin, and the White Doyenné pear, are rejected because they do not succeed *universally*. Perhaps further trial will compel the rejection on the same grounds of one or two others; the Gray Doyenné, for instance, although succeeding well in the Eastern States and England, cracks badly at Cleaveland in Ohio, according to Dr. Kirtland and F. R. Elliott; and the Baldwin apple grown at Cleaveland, we are also informed is affected with bitter rot. A more extensive trial of the Jefferson plum throughout this country, would more perfectly settle its claim to uniform excellence. This select list, however, is unquestionably the best which has yet appeared.

White Black-berry.

J. H. YOUNG, of Brunswick, Pa., sends the following account of a white black-berry he has found. We have heard of a similar fruit in several localities, one of which is Stephentown, Rensselaer Co., N. Y.

"If I am not mistaken, I have discovered a *new* berry. I have inquired and searched extensively, and have found nothing like it. It is a *white black-berry*! I propose to name it the *white-berry*. The bush resembles the common black-berry, *Rubus villosus*; but the berry is larger and sweeter, and when fully ripe has the color of the white rasp-berry. It *tastes* like the black-berry, only "*much more so*,"—as the man said of the cauliflower, when comparing it with cabbage. If this species of berry has been described by naturalists, please inform your readers accordingly. I forbear a more particular description until I shall have ascertained that fact. It may turn out at last to be well known in some other localities, and to have been noticed by botanists under a name not familiar to me."

NEW-YORK STATE AGRICULTURAL SOCIETY.

THE annual meeting of this Society was held in this city on the 19th and 20th of last month. The session was commenced at the Assembly Chamber at 12 o'clock on the 19th—the President of the Society, GEO. VAIL, Esq. in the Chair, and BENJ. P. JOHNSON, Esq. Secretary.

After the meeting was organized, and an opportunity offered to all who desired, to become members of the Society, Mr. JOHNSON read the annual report of the Executive Committee, detailing their labors for the past year, which was accepted, and approved.

Mr. J. M'D. M'INTYRE, the treasurer, then read his annual report. The following balance sheet shows the condition of the financial affairs of the society:—

Balance from last report and receipts from various sources during the year,.....	\$6,457 19
Disbursements during the year:—	
Premiums paid,.....	\$2,266 73
Incidental expenses,.....	514 78
Library,.....	61 22
Salaries,.....	947 27
Expenses, 1846,.....	312 88
Other expenses,.....	547 75
Invested 1st Oct. last,.....	1,000 00
	5,650 63
Balance on hand,.....	\$806 56
	\$6,457 19

The PRESIDENT stated that the permanent fund of the society now amounted to \$8,000.

Mr. L. F. ALLEN, of Black Rock, said, it would be recollected that at the last annual meeting, he had submitted an amendment to the constitution of the society, rendered necessary by the change in the constitution of the State. He moved to substitute *judicial* districts instead of *Senate* districts, as it now read.—It was a mere matter of form. The amendment was agreed to.

Mr. T. SMITH, of Schoharie, offered a resolution providing that a committee of three from each judicial district, be selected by the members from each district, to report the names of officers for the ensuing year, and to recommend the place of holding the next fair.

Mr. GEDDES, of Onondaga, gave notice that at the next annual meeting of the society, he would move an amendment to the constitution, so as to exclude the ex-presidents of the society from the executive committee, they having been added to the board by an amendment adopted last year.

Mr. G. W. CLINTON, of Buffalo, said that he was instructed to present a resolution of the Common Council of that city, asking that the next annual Fair should be held at Buffalo. That city had waited patiently and properly, until every other section of the state had been visited—until they now supposed that their turn had come. The people of Buffalo were now strenuous and hearty in this matter, and full provision had been made by the citizens and the common council for the reception of the society, and the accommodation of the Fair; should it visit that place, and the Fair be held there, he would promise for them at least a good western welcome.

Mr. VIELE, of Troy, moved the reference of the matter to the committee to be raised under Mr. T. SMITH's resolution. Agreed to.

Mr. T. SMITH, of Schoharie, presented a communication from citizens of Geneva, asking that the next Fair might be held at that place. It had the same reference as the other.

The following gentlemen were then announced as the committee of three from each judicial district:—

1. George E. Sickles, Robert G. Campbell, Ambrose Stevens, New-York.
2. Geo. B. Butler, Westchester; John E. Jones, Kings; Wessel S. Smith, Queens.
3. E. P. Prentice, Albany; J. P. Beekman, Columbia; Amos Briggs, Rensselaer.
4. S. Cheever, Saratoga; W. H. Butrick, Essex; J. T. Blanchard, Saratoga.
5. A. Z. McCarthy, Oswego; George Geddes, Onondaga; B. M. Huntington, Oneida.
6. B. Enos, Madison; J. Bennett, Otsego; Geo. W. Buck, Chemung.
7. B. F. Angel, Livingston; T. D. Burrill, Ontario; J. M. Sherwood, Cayuga.
8. A. T. Upham, T. Cary, J. T. Bush.

Mr. T. SMITH laid on the table a resolution declaring that the interests of the society would be promoted by fixing a permanent location for future State Fairs after the next one.

Mr. L. F. ALLEN wished to make a report in part from the committee on fruits. This was acknowledged to be an important subject, and in addition to those reported last winter, he would recommend the following fruits as worthy of cultivation by the people:

PEARS—*Summer*—Bloodgood, Madeleine, Dearborn's Seedling *Autumn*—Fondante d'Automne, Bartlett, Seckel, White Doyenne, Swan's Orange, Steven's Genesee, Louise Bonne d'Jersey, Beur-rose, Grey Doyenne, Washington *Winter*—Beurre d'Arenberg, Glout Morceau, Winter Nelis, Vicar of Winkfield.

PLUMS—Jefferson, Schenectady Catherine, Reine Claude, Columbia, Huling's Superb, Bleecker's Gage, Albany Beauty, Washington Bolmar, Prince's Imperial Gage, Coe's Golden Drop, Dennison's Red, Peach, Lawrence's Favorite, and Prune d'Agen, for prunes. CHERRIES—Mayduke, Florence, Black Tartarian, Yellow Spanish, Holland Bigarreau, Elton, Downer's Late.

PEACHES—Early Tilloison, George IV. Grosse Mignonne, Morris White, Royal George, Yellow Rareripec, Crawford's Early, Red Rareripec, Red Cheek Melocoton, Cooledge's Favorite, Malta, Brevoort's Morris.

STRAWBERRIES—Early Scarlet, Hovey's Seedling, Swainstone's Seedling.

Mr. L. F. ALLEN laid on the table resolutions which he wished to have considered, after the address in the evening—proposing that the Smithsonian Institution at Washington should include agriculture among its objects—and also that Mt. Vernon should be purchased for an Agricultural Educational Institution.

Adjourned to 4 o'clock, P. M.

Four o'clock, P. M.

Mr. ANGEL, from the committee appointed for the purpose, reported the following list of officers for the ensuing year:—

For President—LEWIS F. ALLEN of Erie.
Vice Presidents—1st district, AMBROSE STEVENS; 2d, JOHN A. KING of Queens; 3d, E. P. PRENTICE of Albany; 4th, SAMUEL CHEEVER of Saratoga; 5th, GEORGE GEDDES of Onondaga; 6th, GEORGE W. BUCK of Chemung; 7th, ALLEN AYRAULT of Livingston; 8th, JAMES C. FERRIS of Wyoming.
Rec. Secretary—BENJ. P. JOHNSON of Albany.
Cor. Secretary—EBENEZER EMMONS of Albany.
Treasurer—JOHN MCD. MCINTYRE of Albany.
Executive Committee—LUTHER TUCKER of Albany, JOHN J. VIELE of Rensselaer, JOEL RATHBONE of Albany, JOHN T. BUSH of Erie, THEODORE C. PETERS of Genesee.

The committee also recommended unanimously, that BUFFALO be the place for holding the next annual Fair.

The report was accepted, and the persons named elected.

Adjourned to 7 o'clock, P. M.

At 7 o'clock, P. M., the society convened at the Assembly chamber to hear an address by Prof. J. P. NORTON of Yale College. Mr. N. gave an admirable exposition of the connexion of science with practical agriculture. His illustrations were unnumbered and of so plain and simple a character as to be at once understood. He was listened to for upwards of an hour by

a very large audience, whose satisfaction was evinced by the most profound attention. The address will probably be published.

On motion of Mr. J. A. KING it was resolved, That the thanks of this Society be presented to Prof. NORTON for his able and scientific Address, and that he be requested to furnish a copy of it for publication.

January 20, 1848.

The Society convened at its rooms in the old State Hall, at 10 o'clock, A. M., when the reports of the Committees on Premiums were read.

At 7 o'clock, P. M., the Society again convened at the Assembly Chamber, when Mr. JOHNSON, the Secretary, read the following abstract of the reports of the committees to award Premiums, as follows:

PREMIUMS.

ON FARMS.—1. John Delafield, Oakland, Seneca Co.,—\$50. 2. Peter Crispel, jr., Hurley, Ulster Co.,—\$30. 3. James Pendil, Batavia, Genesee Co.,—\$20. 4. Lucas V. V. Schuyler, Watervliet—set Transactions.

DRAINING.—H. D. Spoor, Troy,—\$10. E. J. Woolsey, Long Island—Set Trans. E. C. Bliss, Westfield Chautauque—Trans 1846.

FARM BUILDINGS.—*Dwelling*—Mrs. Sanford Howard, Albany—\$20. *Piggery*—S. W. Jewett, Weybridge, Vt.,—\$10.

CHEESE DAIRIES.—Alonzo L. Fish, Cedarville, Herkimer Co., statement of experiments, &c.—\$50. Newberry Bronson, Warsaw, Wyoming Co.—\$20.

BUTTER DAIRIES.—B. A. Hall, New Lebanon, Columbia—\$50.

FIELD CROPS.—*Spring Wheat*.—2. Robert Eells, Westmoreland, Oneida Co., 20½ bush. per acre—\$3.

Indian Corn.—George Vail, Troy, 67 bush. per acre—\$20.

Barley.—Benj. Enos, De Ruyter, Madison Co., 39 bush. per acre—\$10.

Oats.—1. Charles W. Eells, Kirkland, Oneida Co., 86 bush. per acre—\$10. 2. Benj. Enos, De Ruyter, 71 bush. per acre—\$8.

Beans.—E. C. Bliss, Westfield, 31½ bush. per acre—\$8.

Flax.—Wm. Newcomb, Pittstown, Rensselaer Co.,—\$5. E. C. Bliss, Westfield—Trans.

ROOT CROPS.—*Potatoes*.—1. Daniel Newcomb, Pittstown, Rensselaer Co., 405 bush. per acre—\$10. 2. Martin Springer, Brunswick, Rens. Co., 369 bush. per acre—\$8.

Ruta Bagas.—1. Joseph Hastings, Brunswick, Rens. Co., 1,317 bush. per acre—\$10.

Carrots.—1. Wm. Risley, Fredonia, Chautauque Co., 557 bush. on half an acre—\$3.

EXPERIMENTS.—W. D. Osborn, Port Byron, Cayuga Co., on 3 acres planted with corn, 1846—\$20. 1st acre, manured with 10 cords barnyard manure before corn—no manure on any part this year—Oats, 1847, 90½ bush. per acre. 2d acre, 1846, Corn. without manure—Oats, 1847, 88½ bush. per acre. 3d acre, manured with 8 cords of manure and 4 loads of muck, 1846—Oats, 1847, 112 bush. per acre.

FRUITS.—Charles Lee, Penn Yan, Yates Co., 2d premium for a Seedling winter apple, "Wagener Apple"—\$5, and Downing's common edition of "Fruits and Fruit Trees."

The Committee also remark, that two Seedling winter apples were presented to the Committee—one called the "Middle Apple," from Herkimer, Herkimer County, and the other produced from the seed of the Newtown Pippin, in Albany County, without a name; but as no description of the growth and habits of the trees, according to the regulations of the Society, were produced, they postponed the further consideration of those fruits until the next annual meeting, and request the producers of these fruits to transmit to the Committee the natural history and character of the trees producing said fruits.

After the reading of the above, the President of the Society, Mr. VAIL, delivered his valedictory address, which presented a flattering and encouraging view of the progress of the Society during past years, and of its prospects for the future. A unanimous vote of thanks was presented to Mr. VAIL, and a copy of the address solicited for the use of the Society.

On concluding his remarks, Mr. VAIL introduced the President elect, Mr. ALLEN, who in a brief and appropriate speech, returned thanks to the Society, and signified his acceptance of the office.

Mr. BURCHARD offered some resolutions in relation to the importance of education to the farmer, and expressive of the advantage which would result by the establishment of Agricultural Schools in connexion with Experimental Farms, which were unanimously adopted. The Society then adjourned.

January 21, 1848.

The Executive Committee met at the rooms of the Society at 10 o'clock—the President L. F. ALLEN, Esq., in the chair. Present: Messrs. Sherwood, Vail, Prentice, Johnson, Viele, Tucker, Stevens, Ayrault, King, Melatyre, Emmons, Rathbone, and several gentlemen from different parts of the State.

A committee of gentlemen from Buffalo, having given the usual guarantee that the expenses attendant on holding the next Annual Exhibition should be paid by the citizens of Buffalo, it was, on motion of Mr. SHERWOOD,

Resolved, That the next Fair and Cattle Show of the New-York State Ag. Society, be held at the city of BUFFALO, on the 12th, 13th and 14th days of September next.

The Executive Committee were occupied during the day, in the preparation of the Prize List, which we hope to be able to present, complete, to our readers next month.

County Agricultural Societies.

QUEENS CO. AGRICULTURAL SOCIETY.—The annual meeting of this society was held on the 24th Dec.

The first premium for corn was awarded to Timothy Nostrand, Jamaica, for 112 bushels shelled corn per acre, raised at a cost of \$13.25.

The first premium for turneps to Wm. Ketcham, Jericho, for 628 bushels, at a cost of \$33.96, leaving a profit after deducting charges, including cost of taking to market, \$173.70 per acre.

Resolutions in favor of Legislative aid being continued, were unanimously adopted.

John A. King was elected president, and Albert G. Carll, secretary. Communications intended for the society, should be addressed to the secretary at Jericho.

JEFFERSON COUNTY AG. SOCIETY.—This enterprising society has, we learn, elected for its officers the present year, the following gentlemen:—WILLARD IVES, Watertown, President; E. S. MASSEY, Secretary; JOHN C. STERLING, Corresponding Secretary; C. V. BRAINERD, Treasurer.

CORTLAND CO. AG. SOCIETY.—The following gentlemen were appointed officers of the above named Society for the ensuing year, at its late annual meeting: JAMES S. LEACH, President; HARVY WOOLSTON, MORRIS MILLER, PETER WALROD, MARTIN SANDERS, Vice Presidents; Noah Hitchcock, jr., Treasurer; Henry S. Randall, Rec. Secretary; Amos Herbert, Cor. Secretary; O. M. Shedd, A. L. Chamberlain, Manly Hobert, Hiram Hopkins, James A. Rogers, S. D. Freer, Moses Kinney, Daniel Rowley, Ira Bowen, Selden D. Munger, Executive Committee; F. H. Hibbard, Marshal. The next fair will be held in Cortland Village.

SAINT JOHN AGRICULTURAL AND HORTICULTURAL SOCIETY.—We have received a copy of the Annual Report of the Directors of the Saint John (New Brunswick) Ag. Society. It does not appear, from the report, that agriculture is in a very flourishing condition in the Province; but from the active measures which the Society is taking, we are led to expect a turn in favor of its improvement at no distant day. The Directors show, plainly, that farming may be made a profitable business in that section.

GOOD FARMING IN VIRGINIA.—Retired public men sometimes succeed quite as well at farming as they do in managing public affairs. A writer in the *National Standard* says that John Tyler had 200 acres of wheat the past season, on a field which three years ago when he moved on, would not produce more than the seed. This year it had twenty bushels per acre. Marl and manure caused the difference.

THE FARMER'S NOTE BOOK.

Unenclosed Lands.

MESSRS. EDITORS—In the December number of the *Cultivator*, you allude to the fact that along the valley of the Connecticut, in Massachusetts, "there are large portions of territory unenclosed, yet there are thousands of acres under cultivation," &c.

Now we are proud to have such a paragraph as the one above cited and those that follow it, written of Massachusetts; for it is to the honor of any State to have such things said of them, and most certainly very much to the comfort of the population to have them exist; for within the last week an intelligent man has remarked, that it was "worth ten dollars a year to any farmer to have the streets keep clear of animals." Another, who has been proprietor of a small farm since 1842, says that this public guardianship has been worth more than \$100 to him in the six intervening seasons.

But let us look at the contrast which a few years have effected in this matter in our ancient, and in some things we hope wise, Commonwealth. Previous to the revision of the statutes of 1836, by the law it was left discretionary with towns to say at their annual meeting, whether "swine and neat cattle should be permitted to run at large under certain restrictions." Very naturally, every town adopted the course which their supposed interest and inclination prompted. In many places, especially in the western part of the state, the usual course was to let them ramble at discretion.

The consequences were, that our streets were so commonly plowed by the long-nosed swine of those days, once at least in a season, that large crops of various unsightly weeds sprung up along the wayside to illustrate the beauty of the thorns and thistles overgrowing the vineyard of the man void of understanding. Large herds of cattle were seen rambling in every direction. These, one might suppose from their general movements, were acting in the capacity of *fence viewers*, for unless barriers were erected between the highway and the adjoining crops, almost high enough for the walls of a fortified city, they were sure to find the discrepancy, which they took for an invitation to "walk in," and partake, in such quantities as their voracious appetites demanded, of the good man's labor. Oh! what vexations arose when these pilferers, licensed by owners who had forgotten the law of love for their neighbors, and the law of right in their dealings with their fellow men, had broken into the meadows, and were perhaps trampling down the corn-field whose luxuriant growth had promised a bountiful harvest, or, perhaps, wading through wheat ready for the sickle, and which, but for lowering skies, might then have been in the reaper's hands, instead of being garnered into the capacious stomachs of the wandering, starved, sacrilegious herd of trespassers, sent out to the daily task of highway robbery. Then, what care was necessary, that every gate and bar should be kept shut, for as sure as they were left for a moment unsecured, a host of quadruped Philistines were ready to enter in and spoil the land. It was not strange in such a state of things, with every temptation before them, that could be offered to educate them in wrong, driven by starving necessity one day, and invited by sumptuous prospects another, that cattle became unruly in their propensities, and ungoverned in their habits, or that they were induced to wander off, frequently to the annoyance of their owners, and sometimes as if to give a lesson of instruction, a total loss to them. But there

were further evils, which are not wholly unimportant, attending this loose and illiberal state of things. If any one was so fortunate as to have a watering place by the wayside, near his residence, he was sure to receive a double portion of the visits of congregated groups of thirsty animals on a warm summer's day; and then wo to his crops, however lofty the barriers that separated them from the "long pasture," herded by a whole community. Perhaps a shade tree threw its spreading arms from his premises (it may be from his door yard, and around his front gate) over the highway. Under a cluster of such trees we found they were sure to make their nooning, and the appearance of the soft sward, and the effluvia round about, we leave others to imagine rather than describe.

The convention that revised our statutes in 1836, saw these evils, and perfected a plan for their remedy; and we have no doubt that the benefits of the single enactment relative to prohibiting animals from running at large in the highways and on unenclosed lands, have already been sufficient to defray the expenses of their whole session, and yet the first fruits of their labor are hardly beginning to be enjoyed. They gave us a statute expressly in this matter, and which cannot be mistaken in its import. In its first application it runs thus:—"The field drivers *shall* take up at any time, all sheep, hogs, horses, or neat cattle found going at large and without a keeper, in the highways or on unimproved lands;" and the field driver is sworn like other officers to the faithful discharge of his duty. So it will be seen there is no ground to parley in the matter, no discretionary power. If a field driver does not construe the law in its plain and simple meaning, it implies at once that he is blinded by prejudice, or led astray by mistaken motives.

After the liberal construction and discretionary power given by the former law, it was in no way strange that one so stringent in its application as the present, should find opposition in every community. This was truly the case we believe, more or less, in every section of the Commonwealth. In some places severe threats were given, in case men did their duty, when they had solemnly sworn to do it. In some, it may be, summary acts were committed on the property of such individuals who dared to do as the law of the land said they must do or perjure themselves before high heaven, and become guilty and untrustworthy in the sight of their fellow men.

But the progress of the matter has been onward, and as you have lately had an opportunity to witness, its triumphs in some places have been complete. In others it is approaching that desirable position, and in all, even our most "secluded nooks and corners," it augurs well of its triumph. "Public opinion," that tribunal which will scarcely allow an appeal from its decisions, is growing stronger and stronger in its approval of the letter of the law, and individual prejudice, which is so prone to take root in the unbroken ground of self-interest, is yielding in its favor as a means of accomplishing its own ends. As you truly related, the state of things in our Commonwealth is essentially improved by the existence of this law. The farmer can now retire at night with the reflection that his crops are safe from highway depredators of all classes, except lawless bipeds, which no fences can stop, and law seldom restrain. He can plant trees along the wayside, and sit quietly and comfortably under the shadows of them—if convenience require, he

can have half a dozen gates or bars open through the day, in the business of the farm, and no annoyance near—he can drive his own animals without inconvenience from those who have no driver—woman and little children can walk the streets quietly and safely without danger from wild, disorderly animals—the waysides, unless used for plowed crops, exhibit a gay, vernal appearance, and when newly mowed present a lovely sight. In fact *countless* benefits attend this improved state of things, and not a solitary wrong thing in the whole matter. Wise are the legislators who enact such good and wholesome laws for the preservation of our rights and safety. Public benefactors are the men who come boldly out and sustain them in their early adoption; and “happy are the people” who live under their salutary influence. May a similar condition to that which Massachusetts is now approaching, and which she is ultimately to attain through all her borders in these matters, be speedily realized all over the nation, and through the world. WILLIAM BACON. *Richmond, Jan., 1848.*

Farmer's Clubs.

We are pleased to learn that a Farmer's Club has been formed in Clinton, Oneida county, N. Y. We have received a communication from a correspondent in reference to this association from which we give the following. We would refer our correspondent to an article on Farmer's Clubs in our last volume, page 62.—Eds.

We are engaged in a new subject, and have no one that has had any experience in such associations; and we are therefore in doubt as to what course to pursue to bring out the talent and experience of the several members of our club. On one point I believe there is but one opinion, that is we want facts, and the experience of the practical portion of our community, rather than mere speculations. The question is, How can this knowledge be drawn out, and made useful to ourselves and others? And what measures can we adopt to not only keep up, but to increase the interest now manifest among us? In large places I am aware that by means of shows, public lectures, and large pecuniary resources, it is not so difficult to do this; but are not these associations as much, or perhaps more needed, in smaller places than in larger ones; and cannot you, or some of your correspondents, suggest some course of action that will best secure the objects aimed at, in the constitution of our society? AGRICOLA.

Coal Ashes—Compost for Corn.

I have been experimenting in the use of coal ashes for potatoes. On half an acre I put nothing but such ashes; on an acre adjoining was spread a good coating of well rotted horse manure; and on another half acre adjoining both the preceding, nothing. Soil, a sandy loam. I found the coal ashes fully equal to the horse manure, the potatoes being very fine for the season. Where there was nothing, the yield was about *one half* what it was on the other portions,—both in quantity and size. I planted half a row with *diseased* potatoes, not a single sound one among them; but in the product I have not yet found the first disased tuber.

The following was my compost for corn, during the past season:—forty bushels of pigeon dung; forty bushels of hog dung, well-rotted, from beneath an old pen; ten bushels of plaster; and five of unleached ashes. A common handful was put in each hill. The corn was earlier by two weeks, larger ears, better filled, and more of them, but less fodder, than where I put fifteen large two-horse loads of barn-yard manure to the acre. The whole crop was in the same field, and the soil and tillage were alike in both parcels.

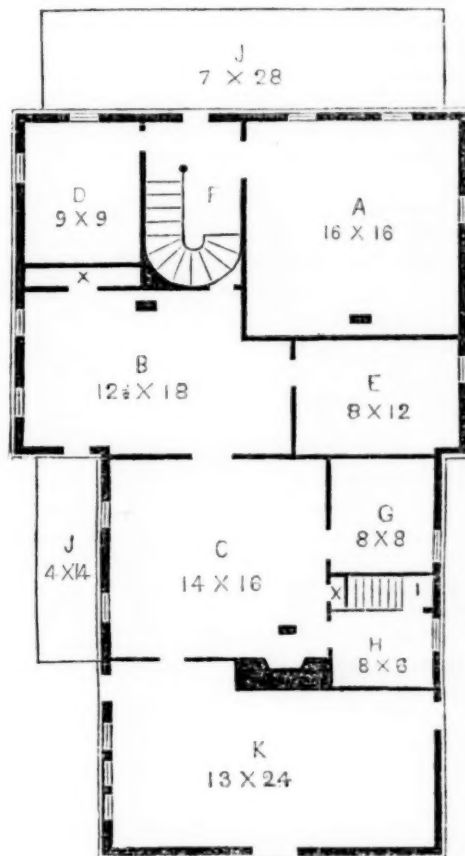
Brunswick, Col. Co. Pa.

J. H. YOUNG.

Plan of a Farm House.

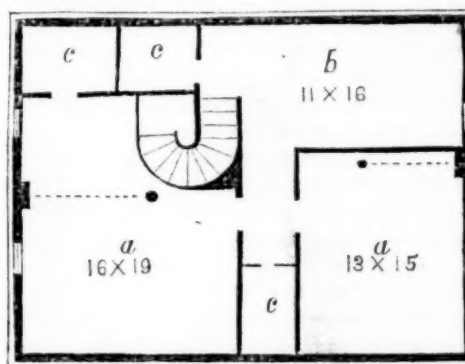
EDITORS CULTIVATOR—I transmit for your disposal the annexed plan of a dwelling, lately erected by myself, and which, in consideration of size—32 × 24, and 28 × 24, including wood house, I find conveniently arranged for family purposes.

The building is of wood, lined with brick; the front, or main part, has 15 ft. posts, the lower rooms 10 ft. high, and the chambers finished to the rafters till 7½ ft. in height. The back, or kitchen part, has 10 ft. posts, consequently no room above except a garret for rubbish.



First Floor—Fig. 20.

A, parlor; B, dining room; C, kitchen; D, bedroom, finished to correspond with A; E, bedroom, finished to correspond with B; F, hall, in which is a circular stairway that occupies only 2½ × 3 ft. space—under the highest side is the passage to the dining room, and the lower side admits under it a quadrant shaped hat stand, as shown by the fine lines; G, kitchen bedroom; H, pantry; I, cellar stairway; J, piazzas; K, wood house; X, stoves; O, false windows outside.



Second Floor—Fig. 21.

a, sleeping rooms warmed by the pipes that pass through the floor from the stoves below, and extend to

the chimnies; the chimnies resting upon plank cup-boards 5 ft. high: *b*, upper hall; *c*, closets.

Persons should conform their plan of building to the site occupied. The house here described fronts two roads, the one 8, the other about 75 rods distant; at a glance it is seen which sides should front the respective roads; therefore a plan adapted for one situation, is not for all. N. B. V. *Cayuga co., Jan. 1, 1843.*

Age of Cattle by their Teeth and Horns.

Some years ago, a gentleman presented at the cattle fair at Paris, Ky., a bull, as a two year old. The rules of this fair allow an animal to be presented as a two year old, until he is three; the fractions of a year not being counted; and this bull was nearly three by the certificate presented with him.

One of the judges, who had Youatt's Treatise upon British Cattle, contended that he was four years old, and that there must be some mistake or fraud somewhere.

The above circumstance induced me to examine a number of the cattle whose ages I knew; and the result was, that Durham cattle have their teeth much sooner than the ages specified in Youatt's Treatise. I examined none that were not six months for each year in advance of those marks. The two year old, would have the marks of three, and so of other ages. These cattle had all been well fed, and were large for their ages.

It is natural to suppose that cattle that come early to maturity, would cut their teeth sooner than those of slow growth, and this is found to be the fact.

Bullon says that cattle have a full mouth at three, Parkinson at four, and Youatt at five years old. There are other authorities for each of those periods, so that it is reasonable to suppose the observations of those persons were made upon different kinds of cattle. Good keep will make cattle look younger than they really are when judged by the horns, and older by the teeth. Poor keep will increase the rings on the horns and retard the cutting of the teeth. If an animal gets very poor the first winter, and is kept badly afterward, he will always have the marks on his horns of being two years older than his real age. If a cow has a calf at two years old, she will always show marks on her horns of greater age than if she had not bred early. SAMUEL D. MARVIN. *Colbyville, Ky. Jan'y 1st.*

Ravages of the Fly in Wheat.

There is one point upon which I do not recollect to have seen much written since I have been a subscriber to the *Cultivator*; that is, whether any remedy can be adopted to prevent the ravages of the fly in wheat in the fall. It has worked very bad this last fall, in that part of the State in which I reside; and my object in referring to the matter is to elicit information on the subject. If there is any known remedy, my own experience and that of my neighbors is, that where a top dressing of manure was applied previous to plowing the last time, they did not appear to injure it. Well, that would be a good enough preventive, if a sufficient quantity of manure of the right kind, or in the right state, could be obtained.

Wheat is the staple article with us, and any thing that will promote the successful raising of it, is what we need. It is the opinion of some of us, that the nit or egg of the insect is in the grain when sown. The principal reason assigned for that opinion, is the fact that the maggot begins to eat at the berry or grain, which in many cases is three inches under the ground; and it would seem that where a field has been rolled, it would be difficult for the fly to get down to the root to deposite the egg, or for the maggot to crawl down.

In fact they are found at the root, or rather just above, when in the nit or egg state. Any thing published in the *Cultivator*, touching their case, may prove a benefit to this region of the country. SAMUEL ATHERTON. *Peru, Huron County, Ohio, Dec. 14, 1847.*

The opinion that the Hessian fly is deposited in the grain, we have good reason to believe is erroneous; if any insect has been found preying on the grain itself, we presume it was not the Hessian fly in any of its stages. The history of the fly is well known. The egg is deposited in the furrows of the upper side of the leaf of the wheat, near the ground. They hatch in a few days, and the larva crawl down into the sheath, and live on the juices of the plant. One generation of the insect is usually hatched in the fall, and another in spring. The eggs of that produced in the fall, are laid when the wheat is but a few inches high. When it is discovered that the wheat is attacked, it has been practiced in some instances, with good results, to feed down the crop closely with sheep, or other light stock. Dr. FIRCH, in his excellent essay on this insect, recommends this course, and also suggests that a heavy roller passed over the wheat, might crush or dislodge many of the eggs and larva. He says "one or the other of the same measures should also be resorted to in the spring, if the same contingency occurs; or if the worms are, at a later date, discovered to be numerous at the first and second joints of the young stalks, the experiment may be tried of mowing as closely as possible, the most infested portion of the field." The operation of the manure, in preventing the ravages of the fly, we suppose to be simply that it produces a more vigorous growth of the wheat, causing it to tiller out faster than the insects destroy the stalks. Every one may have noticed that wheat on rich ground, tillers out much more than on poor land; on this account, or for the reason that it is sometimes too thick, on rich land, it is a common observation that the fly is no injury to wheat in such cases, but on the contrary may be an advantage by preventing it from being too thick.

Culture and Preparation of Sumac.

Being somewhat acquainted with the article of sumac, I am inclined to say a few words on the use and cultivation of it,—especially as the subject has been introduced by your correspondent "Zea."

Sumac was last fall, very high. Sicily being from \$90 to \$100, and American from \$40 to \$50 per ton.

I have been a manufacturer of Morocco, &c., for twenty years, and have bought from twenty to thirty tons of American sumac, and more than that of the Sicily, yearly.

The American is cured as follows: when the leaves have got their growth, which is from July to August, it is cut and cured as green as possible. The best way, if you have room in buildings, is to lay it round in them so as to dry. If it is too thick it will heat; it must be turned every day till dry; then thrashed and all the stems taken out, and nothing but the leaves taken to market. But if it is to be ground, the leaves and small stems are all ground together.

There are several kinds of sumac in this country, only one of which is used in tanning. It has a deep green leaf and a smooth reddish stem, and bears a deep red berry. There is another kind that is often gathered, but it is of little use, possessing very little tanning substance.

I think the Sicily sumac is another kind—it is a great deal stronger than ours. I have no doubt it might be cultivated here and made a profitable crop, as it will grow on poor land. The seed may be sown broadcast, but thin, and the crop mowed when it is full grown. It should be cut before the leaves turn red.

As I have become a farmer, I think I shall sow some in the spring, and see whether it can be made a profitable crop. The chief advantage from the use of *sumac* in tanning, is that it makes the leather of a lighter color.

THOS GUEST.

Trenton Falls, New Jersey, January, 1848.

Origin of the Narragansett Horses.

EDS. CULTIVATOR—The following extract from Updike's "History of the Church in Narragansett," a work which incidentally speaks of other things not relating to the church, furnishes, probably, the best account of the origin, decline and extinction of the famous Narragansett saddle-horses, that can anywhere be found.

JAMES A. CHARLTON.

East Windsor Hill, Ct., Dec. 27, 1847.

"Mr. J. P. Hazard, in a communication to the author says:

'My grandfather, Gov. Robinson, introduced the famous saddle-horse, the Narragansett pacer, known in the last century over all the civilized part of North America and the West Indies, from whence they have lately been introduced into England as a saddle-horse for ladies, under the name of the Spanish Jennette.

'Gov. Robinson imported the original from Andalusia, in Spain, and the raising them for the West India markets was one of the objects of the early planters of this country.

'My Grandfather, Robert Hazard, raised one hundred annually, and often loaded two vessels a year with them and other products of his farm; which vessels sailed directly from the South Ferry to the West Indies, where the horses were in great demand.

'One cause of the loss of that famous breed here, was the great demand for them in Cuba, when that Island began to cultivate sugar extensively. The planters became rich, and wanted the pacing horses for themselves, and their wives or daughters to ride. They wanted them in greater numbers than we supplied them; and sent an agent to this country to purchase them on such terms as he could, but to purchase at all events. This agent never let a good one, that could be purchased, escape him.

'This, and the fact that they were not so well adapted to draught as other horses, was the cause of their being neglected, and I believe the breed is now extinct in this section.

'My father described the motion of this [kind] of horse as differing from others, in that its backbone moved through the air in a straight line, without inclining the rider from side to side, like the common racker or pacer of the present day. Hence the gait was very easy, and the horses being of great power and endurance, would perform a journey of one hundred miles a day, without injury to themselves or riders.'

We are much obliged to Mr. CHARLTON for the trouble he has taken in procuring and forwarding the above facts in relation to the once celebrated Narragansett horses. We have never before been able to obtain a clue to their history.

The Andalusian horses of Spain were formerly held in high estimation. It is said they were carried into France many years ago, and that a cross from them produced the famous Norman breed, which is used in that country for stage-coaches, or "diligences." They were also carried, at an early day, into the Spanish settlements of South America and Mexico, and it is not improbable that the swift-footed "Canalos" of California, of which Col. FREMONT has given some account, (see last number of the *Cultivator*, page 31,) are descendants of the ancient Andalusian stock.

Col. CHAS. HAMILTON SMITH, in the "Naturalist's Library," thus speaks of the Andalusian horses: "The

Andalusian horses are flexible, graceful and active, forming excellent manege or riding-school steeds, and very good chargers. They vary in color, but bays predominate, and next blacks and greys."

Of the South American stock, the same writer says:—"The South American horses are marked with most, if not all the characters of their Andalusian progenitors; they have their grace and good temper, and surpass them in speed, surety of foot, and bottom. Individuals taken on the Pampas have been known to carry a heavy man one hundred miles without drawing bit."

Of the Mexican branch of the family he says:—"The Mexican are known to be derived chiefly from Andalusian progenitors. * * They are a beautiful and sprightly race, of small stature and delicately formed, like roebucks, with handsome heads, the nose being slightly aquiline."

The origin of the fine breed of Andalusia is said to have been a mixture of the blood of the Barbs and Arabs from Africa, with the Spanish horses. During the occupancy of Spain by the Moors from the eighth to the sixteenth century, the horses from Africa were introduced in great numbers and mixed with the stock of the country. "This mixture," says Prof. Low, "was greatest in Andalusia and Grenada, and other kingdoms of the South, and there it is that the Spanish Jennette was formed and is still found with its pristine characters. These elegant little horses were greatly valued over Europe. They are stouter than the Barbs, but much of the same graceful and easy action. They are gentle and spirited, and capable of long and rapid journeys."

During the invasion of Spain by the French, the breeds of Spanish horses were much injured, and some of the best nearly ruined. In order to prevent the Spaniards from using the horses for cavalry purposes, it is said that Bonaparte's marshal issued an order to "disable, and blind the right eye of every serviceable horse in Andalusia."* The execution of this barbarous order, with the disasters incident to the French invasion, nearly deprived Spain of the noble race of horses for which she had long been celebrated.

Experiments—Lime and Plaster.

We are well pleased with the contents of the *Cultivator* in general; many of your correspondents furnish very interesting communications; but some of them, especially those detailing their experiments in farming, are so indefinite that they lose much of their value to the practical farmer. In order to derive much (if any) benefit from the experiments of others, we should know all the minutia of the operation, from its beginning to its end; for it frequently happens, that an apparently small error in repeating the process, will lead to a result entirely different to that which might have been anticipated.

We have observed one fact, relative to the use of plaster and lime, on the same soil at the same time, or shortly after each other. We have been using lime pretty freely for several years, and have repeatedly made experiments with plaster upon corn, for which the ground had been limed within from one to four years, and in no single instance was there the least perceptible advantage from the use of the plaster after the lime. The experiment was made by plastering several rows through the field, at a distance of from four to five rods from each other, and the result was uniformly the same—no difference in color, size or productiveness of those rows, over the rows intervening. How long this will be the case, and when gypsum will again be beneficial to the crops on land to which lime

* Col. Chas. Hamilton Smith in *Naturalist's Library*.

has been applied we are unable to say, as our experience in liming only extends to 1840. Perhaps you, or some of your correspondents, can tell us something about it. JOSEPH M. NESBIT. *Lewisburgh, Union Co. Pa. Jan. 1, 1848.*

Farmer's Town Associations.

EDITORS OF THE CULTIVATOR:—Quite a number of the farmers of my township, (Danville, Iowa,) have recently formed an Agricultural Association for the improvement of the "Soil and the mind;" and as this is the first association of the kind that has been formed in our State, I wish to put it upon record, believing that such associations will increase so rapidly in the next five years, that we will be astonished to find that there was but one in the winter of 1847. Let me respectfully recommend to the farmers of the West, such associations. Besides receiving much valuable information from the agricultural periodicals of the day, it is a very pleasant way of spending a winter evening once a week with our neighbors and friends, discussing the topics with which we are best acquainted, and most interested in. J. A. PINTO. *Hartford, Io.*

Iowa as an Agricultural State.

EDS. CULTIVATOR—I consider Iowa as first in point of natural advantages of any State in the Union for Agricultural purposes. Our prairie soil is a black vegetable mould, from one and a-half to three feet deep. The subsoil is a stiff clay. The Prairies are not generally over two to three miles in width, and the timber is good. There is, probably, about an equal proportion of prairie and timber.

We seldom or never have a failure in our corn crop, and vegetables of all kinds grow to an enormous size with little cultivation. Iowa is one of the best watered states in the Union for hydraulic purposes. Wheat some seasons is very abundant, but is frequently winter killed. I trust we shall find by close and practical observation, a remedy for this evil before many years. Corn being our staple production, it will naturally lead us to be a great pork-making people—and were we nearer the ultimate market for this great staple, or had we a direct railroad communication to the Atlantic states, in five years we would be second to no state in the production of pork.

We have made more fresh pork this season in Iowa, than our capitalists are able to purchase, and the difficulty of getting it to market, as well as the want of knowledge in regard to the number of hogs to be slaughtered in our state, has prevented eastern capital from finding its way here.

Consequently, the price is very low, and a majority of the farmers are packing their own pork. This should never be the case. Farmers can never put up their pork and send it to market as advantageously as men accustomed to that business. They should, and generally would be willing to sell at a fair price rather than have the trouble of packing and shipping for themselves.

I am astonished that more capital is not invested in our state in the growing of wool; from the experience of all who have engaged in it, to any considerable extent, it has proved the adaptation of our soil and climate to this important branch of husbandry—and is found as lucrative as any other branch of agriculture. I am informed by a pretty extensive wool grower in my neighborhood from Washington County, Pa., that his sheep are not subject to many of the diseases here, that they were in Pa.

I do not think it probable that the eastern wool grower upon land worth \$50 to \$100 per acre, and hay worth \$15 per ton, could successfully compete with

the western, where land is worth \$5 per acre, and hay \$2.50 per ton.

We are only in the first year of our existence as a state, and the fourteenth as the inhabitant of a white man—still our population numbers between 150 and 200 thousand inhabitants, a great portion of them from the New England and Middle states; they are probably as well informed, and as industrious as the same number in any of our sister states; and all that we want to make us prosperous and happy, is the communication before spoken of with the east.

The health of Iowa, off the water courses, is as good as in any other state. On the water courses, we like all the west, are subject to fever and ague.

The ease with which we cultivate our prairie farms, would astonish our New England farmers. They would hardly believe that one man with a pair of horses, could cultivate forty-five acres of land in corn, and do it well; but this is not an uncommon occurrence.

We can raise 500 bushels of potatoes to the acre with no other work than to plow them twice or thrice, with the shovel plow after they are planted, that is, without the use of manure or hoe.

The shovel plow is the only tool used in the after culture of corn, and an average crop is from forty to sixty bushels per acre; besides, our corn fields are generally so well lined with pumpkins in the fall, that a man can walk on them all over his corn field.

I may add that I raised the last season 150 bushels of potatoes from two bushels, planted in one corner of my corn field, without manure or the use of the hoe. J. A. PINTO. *Hartford, Iowa, Dec. 13, 1847.*

Farm Buildings.

Every farmer is more or less interested in the construction of farm buildings; and I am glad to see the subject frequently alluded to in the *Cultivator*. Three essential requisites in a dwelling, are neatness, convenience and durability; and, as a general thing, the modern built houses possess these qualities in a greater degree than the unfinished "shells" of the last century. There is, however, often a failure in one respect, in modern buildings: the roof is frequently too flat; this may not be so great an objection, when it is composed of other materials than wood, but when made of wood it should always form an angle of at least thirty-five degrees.

As good shingles are becoming scarce in many places, various other materials are being substituted in their place, for covering certain out houses, where a rustic appearance is no objection. Sometimes boards and slabs are used. These make a tolerably tight roof, when sufficiently inclined, though not very durable; the dampness works in, and causes it to decay. A roof made in this way lasts only about 10 years.

A good roof may be made of sound well seasoned boards, about a foot wide and seven-eighths of an inch thick, laid crosswise the rafters, clapboard fashion.—This method requires the least possible quantity of lumber, and as the water wears across the grain of the wood, it is quite durable. The edges should be lapped over each other about an inch and a-half, and the ends about two inches. H. C. B., *Otsego Co., 1847.*

Potatoes.

For the last two seasons I have planted my potatoes the last of May—had the ground plowed and furrowed the same as for corn. I take good, fair smooth potatoes and cut them lengthways, putting a quarter of a large, or half of a middling sized one in a hill. In this way I get large thrifty tops, which I consider necessary to insure large potatoes.

We cultivate with a three-shovel plow, working si-

milar to a common cultivator; we hoe the potatoes to keep the weeds down, leaving the ground on a level, or but slightly raised about the hill. In digging, I find the potatoes near the stalks, and near the surface, which is the natural situation for them. Pink Eyes are apt to run out of a hill, and place themselves on the outside near the surface; but cultivated on a level they are found more compact about the stalks, and much time is saved in digging.

We in Illinois, bury many of our potatoes in the field. In the fall of 1846, I buried about forty bushels in one hole, ventilated at the top, until cold weather required the final covering necessary for winter. I had another hole, with about thirty bushels, covered without leaving any ventilator at the top, and but little earth over the straw; and a third hole, of about twenty bushels, covered with about eight inches of earth over the straw; all dug and put in within three days—the weather being warm and fine. A few days after, I was at one of my neighbors, and found them sorting over potatoes—the top of the heap being a rotten mass. The hole was covered about eighteen or twenty inches. I went home and examined heap No. 1, which was ventilated; it was dry, and potatoes all sound; No. 2, damp and swelling at the top; No. 3 was considerably rotten at the top of the heap.

I don't pretend that we can get the greatest quantity per acre, but I have obtained an excellent quality, and as good a yield as ever I had, planted in hills.

Dixon, Illinois, Dec. 24, 1847. N. WHITNEY.

Breeding Horses.

THE appearance of Mr. BURNET's communication in the January number of the Cultivator, seems to render it proper that I should endeavor to "define my position" in regard to a subject on which he thinks I have not been sufficiently explicit.

After Mr. B.'s remark, in the commencement of his article, that he had read my papers on Breeding Horses "attentively," it was not without surprise that I found he had entirely misunderstood me in relation to one of the most important points therein considered. Under the influence of this mistake, he supposes that I am "privately" inclined to take the breeds [of horses] we have already in our country—such as the Morgan, the Narragansett, the Canadian, perhaps, and the descendants of Messenger and Duroe, and breed them among themselves, to establish a sort of home-breed—a kind of "horse of all work."

If Mr. B. will turn to the first number, and first paragraph, of my articles, (last vol. Cultivator, p. 169,) he will find it plainly stated that the object was to consider the "best mode of improving our horses for the carriage and road." By "carriage" was meant such a vehicle as is drawn by horses on the road, and perhaps the idea would have been better expressed by the question—How shall we produce the best roadsters? As this object, however, was thus set forth in the outset, and kept prominently in view through the whole series, I am at a loss to discover wherein I have given any grounds for the supposition that I am "privately," or otherwise, disposed to encourage the breeding of various stocks of horses "among themselves" for the purpose of producing a "kind of horse of all work."

In No. IV of my articles, (page 271, last vol. Cultivator,) it is said—"With regard to the best course for improving our horses for the carriage and road, the first object should be to preserve the best stocks now in the country. Such families as those above named, and others of value, should be bred with strict care, and sufficiently by themselves to ensure uniformity of character. It being the constant endeavor to breed them as much as possible to one standard or model, no blood

should be admitted which would be likely to cause a deviation from it. This course should be pursued for many years, until the peculiar qualities of the stock become so fixed in the blood that they will be transmitted with a good degree of certainty."

Here it is, to be sure, advised to breed from stocks which "we have already in the country;" but it is by no means advised to "breed them among themselves" for the purpose of obtaining a "horse of all work;" on the contrary, it is recommended that the different stocks be bred by themselves, that is *separately*—or sufficiently so to "*insure uniformity of character*."

Mr. Burnet observes that "the existence of different species of horses, naturally suggests the idea that they were designed for different purposes; and that to combine the excellencies of all in one new and distinct species is, to say the least, by far the most difficult problem of breeding."

By substituting the word *breed* for "species,"* in the above quotation, it meets my cordial approbation, and I am not conscious of having said anything in opposition to the idea there expressed; on the contrary, the general tenor of my reasoning is in agreement with it. [See remarks on the different mechanism required for running horses and trotting horses—last vol. Cultivator, pp. 204, 205.]

As to the expediency of breeding from thorough-bred stallions, I should not, certainly object to the course, so far as Mr. Burnet has recommended it—viz: to produce from such a mare as he has described, a *city carriage horse*—"to drive about the city at a slow pace, to take the ladies a calling or a shopping."

I will say farther, that I would advise experiments to be made in breeding from thorough-bred stallions for other purposes, or for the production of roadsters, *provided* the right kind of stallions can be obtained. Observe that Mr. B. does not want "a mere scrawny race horse," but "*one that takes after the old patriarchs of his family*—that is staunch and sound, with plenty of bone and substance."

But my object has been rather to lay down certain general rules for breeding, and to give points by which breeding-stock should be chosen, (see particularly No. V of the series, last vol. of the Cultivator, page 304,) than to recommend any particular blood; being confident that improvement would be most readily attained by the former course.

EQUUS.

To Cookstove Inventors.

Amid all the numerous Railroad, and Telegraph, and Locomotive, and Air-tight cooking stoves, with their endless modifications, and astonishing improvements, the attention of the inventor seems never to have been directed to two very essential points. We have no convenient contrivance for heating *flat-irons*, without building a roasting fire, ninety-nine hundredths of the heat of which passes into the room and up the chimney, instead of into the irons. Two cords of wood per annum are consumed by my domestics in ironing, over and above what would be needed for the ordinary processes of cooking. A real roarer must be kept up whenever the irons are to be heated. Now, how much, think you, would be saved in the Empire State, by the invention and introduction of a contrivance to remedy this evil? Two cords of wood, cut, drawn, sawed, split and housed, cost, on an average, three dollars per cord—six dollars per year. A hundred thousand families in the State using cookstoves—very moderate estimate—swell the aggregate cost to the

* I have regarded the domestic Horse as of one species. According to naturalists, only two species of Equidae, the Horse and the Ass, are regarded as subjects of domestication.

snug little sum of six hundred thousand dollars per year. It would be worth while for inventors to set their wits at work, would it not?

The other defect, is the want of a good fixture for toasting bread. The inconvenience and difficulty every one knows, but nobody has yet, that I have learned, devised a good remedy. Who will take the subject in hand? A MANUAL LABORER.

Trapping Foxes.

Take some fine hay chaff, from a horse manger, and scatter over about one yard of ground, or on snow, in the open field, where foxes are apt to wander, as near the house as you can bait them. Then upon this chaff, which we call a bed, and around it for some distance, strew a handful of fine scraps for several nights, the refuse of tallow or lard.

At first the foxes will not approach the bed, but will shy around and pick up some of the fragments. Examine occasionally and replenish with a little new bait, if they have taken any. If on the snow, always pass by close to the bed in one direction, not making any extra tracks. In a few nights they will approach the bed and clear the whole ground of the bait.

The best size for a fox-trap, when set, will measure about five and a-half inches across the jaws. The springs should be made of the best steel, and not over five and a-half inches long, each spring. Rub over the trap a little tallow, and smoke it. Make a hole in the snow or ground in the centre of the bed, that when the trap is set, it will be a little below the surface.—Place a wad of loose tow or cotton under the pan, and cover over with dry ashes or sand that has been sifted. Then we spat these ashes down quite compact with a limber stick, say about eighteen inches long, and one inch wide, covering the pan and jaws of the trap, when pressed, about one fourth of an inch. It should be so set that a light weight would spring it. Scatter over, as at first, a thin coat of hay chaff, which is best done with a sieve. If there be snow, sift over the bed a slight layer, unless the trap be set during a gentle fall of snow, which is best; be careful not to make extra tracks about the bed; when all is done, scatter over the whole some fine scraps or toasted cheese, or both, throwing some bits about at a distance. When once well baited, if the trap be skillfully set, there is a fair chance of taking the fox, though he may be an "old one." I have seen many an one caught in this way, having had some fun myself.

A boy can tend two or three traps about as cheap as one. Level cleared land; in the woods foxes are more shy. If the trap be made fast, the fox when caught will make his escape by eating off his foot. A small chain should be attached about eighteen inches long, secured to a stone that will weigh about four pounds; this can lay under the trap when set.

A dead carcass, horse or other animal, makes a strong bait. Set two or three traps within ten rods. If the ground be free from snow, cover over with moss upon the ashes or dry sand, leaving the surface of the ground as natural as possible; make use of a little bait (as above advised) on the trap; the size of a walnut, broken up, is sufficient. You will take more game in this manner, than if set by the carcass, and not be annoyed by dogs.

Another mode of taking foxes is to bait them on a small piece of ground surrounded by water. So arrange it that the fox may leap into a natural or artificial bog, covered with moss, before he reaches the bait. The trap may be covered with moss only, on this small bog, leaving all as natural as possible; you are pretty sure to out-wit them in this manner.

If a trap be set for a fox burrowed in a den, he will not pass over it for some days, unless he be much fam-

ished; if there is any other possible way of escape, he is sure to find it.

Foxes deserve more credit than farmers usually give them. They are very useful in destroying mice and insects. If one should now and then, just take a fowl or a lamb, he may be severely punished, *when you catch him.* S. W. JEWETT. Weybridge, Vt., Dec. 17, 1847.

Ashes on Corn.

Stable or yard manure must always stand at the head of the list of fertilizers, for value and universality of application; but gypsum, ashes, lime, bones, &c., will be more or less valuable as auxiliaries. In some cases the effects of the latter may not be sufficiently great to be striking or apparent; in others they are quite conspicuous. An experiment with ashes, by Wm. Van Deusen, accurately conducted, is detailed in a late number of the Gen. Farmer. The soil was a light, thin sandy loam on a hard-pan bottom. Ashes was applied to the hills of corn, after planting, at the rate of $3\frac{1}{2}$ bushels per acre. Two rows, precisely like the rest in every respect, were left unashed. The following are the results, which we have condensed into tabular form; two rows being taken on each side of the two unashed, by way of comparison:

	product.	hog-corn.	good corn.	per acre,
				in ears.
Unashed,	166½ lbs.	45½ lbs.	121 lbs.	49 bu.
Ashed, west side, 207½ "	29½ "	178 "	72 "	
Ashed, east side, 205 "	27½ "	177½ "	72 "	

Thus it will be perceived that the ashes gave 23 bushels of ears more per acre; the whole gain on the five acre field where the experiment was tried being 115 bushels—besides the increase of fodder—all for 17½ bushels of ashes. The soil was evidently of that character which is most benefitted by the application of ashes. On heavy rich land the result would doubtless have been far less obvious.

Depth of Manure.

Considerable discussion is going on in the papers, relative to the proper depth to bury manure. Some assert that its best parts descend, and therefore it should be but slightly covered; while others maintain that nearly the whole strength becoming gaseous, rises, and it must therefore be buried deep. All this difference of opinion results from the attempt to make a rule that shall apply to all circumstances.

One farmer applies manure to the surface of a newly plowed field late in the spring, and harrows it in. Hot and dry weather follows, and being only partially covered, much of it escapes in vapor and is wasted; the few light rains which occur are insufficient to wash much of the soluble portions into the soil, it never reaches the roots of the crop, and consequently produces little or no effect. Again, he plows it deeply into the soil, and the reverse in every respect takes place. Hence he becomes thoroughly satisfied that manure should *always*, under all circumstances, be buried deep.

Another farmer applies his manure late in autumn, to the surface. Cold weather prevents fermentation, and the enriching portions which otherwise would escape in vapor, is washed by the abundant rains, in the form of liquid manure, into the soil; and by the usual time of plowing in spring, the surface of the soil for a few inches, is saturated with the most fertilizing parts, the plow turning under the rest. All is thus saved; and the farmer is convinced that surface application is *invariably* the best.

They "both are right, and both are wrong." They should act according to circumstances. Every farmer is aware, by the smell, that but little manure escapes from his yard in winter, but much in summer. Hence in winter

and in late autumn and early spring, manure may safely lie at or near the surface, and its soluble parts will descend deep enough into the earth. But in a dry soil, and during a dry warm season, it can scarcely be plowed to deep, for benefitting the roots of plants. Indeed, by a shallow covering, it will be likely to do no good at all, the moisture of the earth being insufficient to dissolve it, and hence the reason that manure in dry seasons sometimes does more harm than good. And hence, too, why a thorough harrowing, to break it fine and mix it with the soil, after it is spread, and before plowing in, is found so useful.

Manure.

Good farmers know the great gain resulting from applying the manure which is made during the winter, to the corn and other spring crops. If left to ferment in the yard through summer, one half at least of its value is lost in vapor, &c., and the corn crop receives none of its benefits. But if plowed under in spring, the corn is enriched, the vapor as it escapes is absorbed by the earth, and a double benefit is thus received. But a difficulty occurs where corn fodder is largely fed, which mixing with the manure binds it together so that it cannot be drawn and spread till the stalks have rotted. All this is obviated by cutting the stalks fine in a machine, and more nutriment is obtained from them by the cattle.

Sheep manure is difficult to separate and load, being dry, hard, and crusty in its nature. In order that it may be separated by the fork, take a second-rate axe and chop parallel lines across the heap a foot apart, and cut these again at right angles, which will give blocks a foot square, which may be easily loaded and drawn.

When manure from its coarseness must necessarily be left to ferment a few weeks or months, much of its value may be saved by mixing it, or merely covering it with plenty of muck, turf, earth, saw dust, &c., with gypsum, unslacked lime, and other ingredients of good compost. Gypsum is usually regarded as one of the best absorbents of the gasses of manure; but in drawing out the most fetid of all manures, we have found covering it with air-slacked lime, far more effectually to destroy the unpleasant odor, than the use of gypsum.

Advantages of Agricultural Associations.

The following judicious remarks, are taken from a preamble to some resolutions passed at a late meeting of the Yates County Agricultural Society. A copy of the proceedings as forwarded to us by the secretary, but we have only room for this extract:

"It is conceded by all classes that the science of agriculture is, of all subjects, the most interesting, and, indeed, absolutely necessary to the existence of the human family; therefore it should claim the greater share of their attention. It is a self-evident truth that in union there is strength, and that by associated action the standard of agriculture may be very much advanced among us, not only in theory, but in attaining to more perfect and certain results in practical farming than we have yet aspired to. Knowledge, the motive power of every science, must be brought to bear upon this subject. This can only be done in the science of agriculture by experiments—these must be extensive, and carefully and accurately compared, until effects can be traced to their causes. Agricultural knowledge can in no way be so well disseminated, and experiments so well compared, as by agricultural societies."

THE CORN CROP.—In 1845, it was 417,800,000 bushels in the United States. In 1847 it is estimated at 600,000,000.

Answers to Inquiries.

TARES OR VETCHES.—J. M. N., Lewisburgh, Pa. By reference to the March number of the *Cultivator*, for last year, page 84, you will find out what these are and what are their uses.

STRAW CUTTERS.—S., Jordanville, N. Y. A cutter for corn-stalks &c., is manufactured by WHEELER & Co., and for sale at the Albany Agricultural Warehouse, that might answer your purpose. There are two sizes—for hand-power and for horse-power—the price of the former, \$16, and that of the latter \$25. A drum may be attached to the smaller machine, by which it may be propelled by horse-power.

COMPOSITION FOR WOUNDS MADE IN PRUNING.—A. C., Edgartown, Mass. The recipe you refer to says: "Take a quart of alcohol and dissolve in it as much gum shellac as will make a liquid of the consistence of paint." As to the *quantity* of gum shellac, it appears obvious that it is necessary to apply it till the mixture becomes "of the consistence of paint." Keep the brush in water when not in use.

SOUTH DOWN SHEEP.—C. C., Meriden, N. H. The average dressed weight of South Down sheep, may be set at from sixteen to twenty pounds per quarter. The mutton is of the finest quality. The price of ewes here would be from ten to fifteen dollars each. The wool sells readily at about the price of half-blood Merino. The South Downs are rather more likely to shed their wool than Merinos. A cross of the Bakewell or Leicester and South Down, would fatten as well or better than either breed, in its purity.

STEEL TEETH FOR CULTIVATORS.—J. A. C., Grand Isle, Vt. Steel teeth for Cultivators can be had at the Albany Agricultural Warehouse, at 62½ cents each, or cultivators with the same kind of teeth, suitable for one horse, can be had at \$7½ each. They are of the kind that is used in the western part of the State for working summer fallows. The teeth are fastened by a key, and may be readily taken out and placed in another frame—the same teeth answering for a cultivator for one horse, or two or three horses.

SWAMP MUCK.—O. P., Cananadaigua, N. Y. The information you ask for is given very fully in the October number for last year.

STALLION.—"Baltimore, Md." Such a stallion as is inquired for, of the Morgan or the Morse's Grey stock, would cost from \$400 to \$800—according to quality and value.

TAR PAINT OR GAS TAR.—J. W., St. Stephens, Alabama. The article advertised as "tar-paint," is produced from anthracite coal in the process of making gas. It is generally used about the consistency of common paint, and is applied to the outside of buildings, such as barns and stables, also to fences, bridges &c. A common whitewash brush is used for laying it on. The coal-tar is also used as a coating for iron, but for this purpose it is boiled to the consistency of pitch.

BUCKTHORN PLANTS AND SEED.—J. W. P., Wyoming, N. Y. This seed can be had at the Albany Agricultural Warehouse.

"A CORD OF MANURE."—J. I. K., Sing-Sing, N. Y. In measuring manure by the cord, the same rule is adopted as in measuring wood—that is, 128 cubic feet make a cord.

CRANBERRIES.—J. I. K. We notice that Mr. WINTHROP LOW of Essex, (Mass.) obtained a premium last fall for a crop of cranberries, and we presume he could furnish roots, but at what prices we do not know.

Answers to several other Inquiries will be given in our next.

Notices of New Publications.

TRANSACTIONS OF THE WORCESTER COUNTY HORTICULTURAL SOCIETY; by GEORGE JAKES, Worcester, Mass.

This work contains an account of the origin of the Worcester Horticultural Society, with a full record of its doings from the time of its organization in 1842, to the present time; together with a statement of its financial concerns, notice of the library, abstracts from the reports made at various meetings, list of officers and members, &c. This society has been of great service to "the Heart of old Massachusetts," as the county where it is located has been called. We have witnessed some of its exhibitions, which were of a highly interesting character; and we are glad to hear that a general conviction of the usefulness of the Society, has induced a liberal support. We trust its operations will continue to be unimpeded.

TRANSACTIONS OF THE ESSEX (MASS.) AGRICULTURAL SOCIETY.

We are indebted to JOHN W. PROCTOR, Esq., the president of this Society, for a copy of the Transactions for 1847. It contains several excellent papers, some of which we shall notice hereafter. It is got up in a model style, and furnishes a good example for other societies.

FARMERS' LIBRARY AND MONTHLY JOURNAL OF AGRICULTURE.

This work is progressing in its third volume. It consists of two parts—the first being a re-publication of foreign standard works relating to agriculture; and the second and miscellaneous department, consisting of editorial articles and communications, from correspondents. In the first, or "Library" part, there have been re-published—"Petzholdt's Agricultural Chemistry," "Thaer's Principles of Agriculture;" and there now is in course of reprint, "Stephens' Book of the Farm." The work is under the editorial charge of JOHN S. SKINNER, Esq., well known as the founder, and for many years the conductor of the old *American Farmer*—the first agricultural paper in this country. It is published by GREELEY & McELRATH, Tribune Buildings, New-York. Terms \$5 a year.

A TEXT-BOOK ON AGRICULTURE: by N. S. DAVIS.

Dr. DAVIS states that he was incited to write this work by the offer of a premium by the New-York State Agricultural Society, for the best text-book on agriculture. Circumstances, however, finally induced the author to withdraw his name from the competition for premium. A "text book" of agriculture, which shall be in all respects beyond criticism, is a work requiring no small amount of knowledge, both of the principles of agriculture and its practical details. We have had but little time to examine Dr. DAVIS' work, but shall endeavor to present a notice of its contents and character in our next number. It is published by S. S. & W. WOOD, New-York.

COPEMAN'S VETERINARY TABLET, being a synopsis of the Diseases of Horses, Cattle and Dogs; with their Cause, Symptoms and Cure; by ARTHUR S. COPEMAN, Utica.

This table appears to be arranged with much judgment. Most of the diseases to which horses, cattle or dogs are liable, are here mentioned, and prescriptions given for their treatment. By the aid of observation, and some knowledge of the animal economy, we think it would prove very useful.

AMERICAN JOURNAL OF AGRICULTURE AND SCIENCE.

This publication, heretofore under the charge of Messrs. EMMONS & OSBORN, is hereafter to be conducted by C. N. BEMENT, Esq., who has for several years been extensively known as a writer on agricultural subjects. We are informed that he is to be assisted in the present work, by "several scientific gentlemen

and practical agriculturists." The number for January contains contributions from JAMES EIGHTS, WM. BACON, and WM. R. PRINCE. It is published Monthly, at two dollars a year.

AMERICAN JOURNAL OF SCIENCE AND ART.—This excellent work, conducted by Messrs. SILLIMAN & DANA, is eminently deserving the patronage of the friends of science in this country. The number for January last has been received, and contains several articles of interest and value, among which are the following: Account of some Researches on the Protein Bodies of Peas and Almonds, and a Body of a somewhat similar nature existing in Oats; by Prof. JOHN P. NORTON; on the Resistance presented by Fluids to Electric Conduction; by Prof. EBEN N. HORSFORD; Fossil Footprints of a New Species of Quadruped; by JAMES DEANE; on the Depth and Saltness of the Ocean; by Capt. WILKES, U. S. N. The Journal is published on the first day of every second month, at New-Haven, Ct.—Price \$5 a year.

MAINE FARMER.—This is one of the oldest of our agricultural publications. It was commenced in 1833, and under the editorial guidance of Dr. E. HOLMES, has "pursued the even tenor of its way" through various vicissitudes. In the fifteen years of its existence, it has been of incalculable advantage to the people of Maine, by encouraging a taste for agriculture and horticulture, and by teaching that the State is capable of supporting a thrifty population from other sources besides pine timber. The *Farmer* is now published at Augusta, by RUSSEL EATON, and in typographical execution and neatness of appearance, is not excelled by any other paper of the kind in the country.

Diseases of Animals, &c.

SCRATCHES IN HORSES.—This appears just above the hoofs, behind. Wash well with warm soap suds, and then with beef brine. The writer has speedily cured bad cases in this way.

BOTS IN HORSES.—A correspondent of the N. Y. *Spirit of the Times* gives the following recipe for the cure of bots and cholic in horses:—Take from a pint to a quart of castor oil, mixing in it as much fine table salt as it will take; bleed the horse in the mouth, and when bleeding freely, pour the above down, blood and all.

CARE OF FRESH COWS.—Two to four quarts of wheat bran are found to be one of the best things to give a cow after calving, to facilitate cleaning.

BLOODY MILK.—A correspondent of the *Genesee Farmer*, says his cows all suddenly gave bloody milk, as he supposed, to his own great anxiety, but joy to the pigs, until he found out that it resulted from feeding them red cabbage, of which he happened to have a large quantity—the blood ceased when the cabbage was gone.

Be certain to keep your diseased animals, no matter of what kind, if you have any, away from the rest of your stock. Diseases are frequently contagious, and the sickly or weak can be better cared for when separated from the rest of the herd.

DEATH OF AN OLD HORSE.—A horse called *Charles*, forty-five years old, died on Staten Island on the 12th of December last. The *Spirit of the Times* states that he was the property of the late O. MAURAN, Esq., of New-York, and that he was bred at Horse Neck, Connecticut, in 1802.

SHEEP-STEALING DOGS.—It is said that if a few of the sheep in a large flock are furnished with bells, the dogs will not attack the flock, a dog thief being a cowardly, sneaking animal, and afraid of noise.

fourteen pounds of butter, besides the milk and cream used in a family of five persons. The food consumed by the cow in the seven days was as follows: "fourteen small bundles of top-stalks, three bushels brewer's grains, half a bushel ruta-baga turneps, four quarts of shorts." The milk used in the family is considered equivalent to one pound of butter.

MOUNT AIRY AGRICULTURAL INSTITUTE.—By reference to our advertising department, it will be seen that Mr. J. WILKINSON has removed his agricultural school from Dutchess county, N. Y. to Mount Airy, the well known country seat of JAMES GOWEN, Esq., near Philadelphia. It will be seen that the new Institution is to be ready for the reception of pupils on the 20th of March. It has our sincere wishes for its success.

SAMPLE OF WHEAT.—We have received from Mr. JOS. M. NESBIT, of Lewisburg, Pa., a sample of wheat of a variety lately introduced into that section. It is a red bearded wheat, the grain tolerably plump. We are told it ripens late, but it has not been cultivated in the neighborhood from which it was sent a sufficient length of time to ascertain its value. We do not know the variety.

MULTICOLE RYE.—Several of our correspondents have requested us to send them small parcels of this rye by mail, which we hoped to have done; but we have not been able to obtain a spoonful of it since these requests were made.

CATALOGUES OF NURSERIES.—We have frequent calls for these catalogues, and nurserymen might promote their interests by sending us a few copies, free of expense, for distribution to applicants.

HOLBROOK'S SCHOOL APPARATUS.—Mr. JOSIAH HOLBROOK desires us to say that he is in no way responsible for "Holbrook's Apparatus," purporting to be made by Holbrook & Co., of Ohio. He considers it essentially and mischievously defective and erroneous.

"Render," &c.—The article on "Curing Meat," credited by the *Mass. Ploughman* to the *Philadelphia Saturday Post*, and attributed by other papers to various sources, originated in the *CULTIVATOR*—December number, 1844.

WINTER SQUASH.—Mr. SAMUEL O. TABOR of Slatersville, R. I., gives us the result of the product of a piece of ground, 40 by 50 feet in extent, devoted to winter squashes. The yield was 700 pounds, of which 670 pounds were sold for \$10. The product was at the rate of 15,900 lbs per acre, and at the price for which the above portion was sold, would be worth \$237.31. The soil is described as "yellow loam"—the manure from the hog-yard. The squashes were of the striped crook-necked variety, and were planted in hills six feet apart.

LARGE BEETS.—Mr. E. S. SALISBURY, of Ellisburgh, Jefferson county, N. Y., informs us that he raised three beets of the scarcity variety, which weighed as follows: 14½, 15½, 17 pounds. Several others in the lot weighed from eight to ten pounds each.

SCIENTIFIC LIBERALITY.—The Massachusetts Agricultural Society has ordered from Paris, at a cost of about \$300, the figure of a horse of full size, so constructed as to admit of all the pieces being taken apart. These pieces represent the muscles, blood vessels, heart, lungs, and other organs, of their natural size and appearance. Such objects would be admirably adapted to agricultural schools, and would afford the pupils accurate and useful information, scarcely to be obtained in any other way.

IMPROVING GRAIN.—B. P. JOHNSON says, in speaking of English Agriculture, in his Greene County Address, "Great care is taken in the selection of seed grains. In many instances, so much nicety is observed, that the earliest and most luxuriant heads are taken out by the hand, and carefully drilled in until the product

is sufficient for use; and in this way some of the best varieties of wheat now grown in England have been secured."

OCCUPATIONS OF THE PEOPLE.—It is stated that the men of the United States are engaged nearly as follows:

Internal Navigation,	33,000
Ocean Navigation,	56,000
Learned professions,	65,000
Commerce,	120,000
Manufactures,	792,000
Agriculture,	3,720,000

Thus, farming occupies about three and a-half times all the rest; why then should not agricultural periodicals be taken in like ratio, in comparison with others, that men may become properly informed in the business which occupies nearly all their time?

"QUARTER" OF GRAIN.—In England, a ton is 2,240 lbs., a *quarter* of that 560 lbs., which is the weight of a British, or Imperial quarter of wheat, or 8 English bushels, the bushel being 70 lbs., thus $8 \times 70 = 560$. The U. S. bushel being 60 lbs., $9\frac{1}{2}$ of our bushels constitute a quarter.

EXPORTS OF CORN.—From 1791 to 1819, they were often a million, sometimes two millions. From 1819 to 1845, they did not in any one year amount to a million. In 1846, they exceeded two millions, and in 1847, they exceeded *nineteen millions*.—But this, enormous as it is, is only a thirtieth of the whole crop of the country.

GREEN CROPS.—The *American Agriculturist* says that a few years ago, he renovated "a miserably poor field," by allowing the spontaneous growth of weeds, and then plowing them in as often as the principal ones were going out of bloom.

IRRIGATION.—There is one fact connected with irrigation which should be borne in mind by those who practice it—that the beneficial effect is not produced when the water is allowed to *stagnate* and sink down in the soil, but it must be kept in motion in a current over the surface.

TO EXTERMINATE BRIARS.—To eradicate briars which grow along fences, plow deep, and sow oats. When cut, plow deep as the briars appear, and they will soon become smothered out. No plant can live long, unless it can *breathe* through its leaves.

POTATO ROT.—A writer in the *Gen. Farmer* says: "The Mercer seems most affected by the rot, the Pink Eyes next, the Merins next, and the June potatoes least, or not at all"—probably ripening fully before the advent of the disease.

PROFITS OF ENGLISH FARMING.—An European correspondent of the *Genesee Farmer* states, that although the farmers in England have to pay large rents, he thinks their nett profits are greater than those of American farmers, who own the lands they occupy. He thinks the principal reason is, that there is a good home market for nearly all kinds of agricultural productions; and that the same advantages can be reaped in America only by an extensive encouragement of manufactures; and that a distant foreign market for grain, with heavy drawbacks for freight, cannot be depended on; and much less so for the smaller and less substantial products.

PROFITABLE DAIRY.—A farmer in Lancashire, England, lately realized a sum of money equal to \$200, by the sale of 13½ cwt. of cheese, the product of 13 cows, in 38 days—more than 50 cts. per day from each cow. The secret—the best cows, first-rate feed, and the best management in cleanliness, regularity, and in all other respects.

ONIONS.—J. W. PROCTOR, Esq., President of the Essex county (Mass.) Ag. Society, states that, from inquiries made, it appears that the average yield of onions in the town of Danvers the past year, (where

200 acres were cultivated,) was 180 barrels, or from 4 to 500 bushels per acre. That the average value for several years has been \$1 per barrel. That the average cost of cultivating an acre of onions, does not exceed \$75—leaving a net income from the land of \$100 per acre.

SEEDLING POTATOES.—See advertisement of Rev. N. S. SMITH of Buffalo, in this number.

A SINGLE GRAIN OF BARLEY, sown in a garden in England, in the spring of 1847, is said to have produced 75 stems, 50 good ears, 20 indifferent ones, and 1,795 grains of barley. The plant and its produce are preserved in the museum of the Royal Agricultural College.

ARTIFICIAL STONE.—It is said that a process has been patented in England for making artificial stone of every quality, from artificial granite to statuary marble. The invention is stated to be founded on a chemical analysis of the natural varieties of stone. It is made of flinty and siliceous grit, rendered fluid by heat, and poured into moulds till cooled and hardened. The artificial stone has, as is stated, already been used for coping stone for variegated pavements for halls and rooms, stone ornaments—such as mouldings for friezes; also for grind-stones and hones. The invention is thought to be particularly applicable to the lining of cisterns and water-pipes—its vitreous qualities insuring cleanliness. The process of manufacture is said to be easy and cheap.

LIME AND PLASTER.—In Scotland, where the climate is so much more moist than in the United States, plaster or gypsum is of little use, but lime is very important. Gypsum is of great utility in the dryer climate of America; but would not a parity of reasoning show that lime might be used to excellent advantage on our wettest soils?

INDIA RUBBER.—It is well known that India rubber has been substituted for steel springs in rail cars and carriages. It is now found that railroad wheels, even for freight cars, are greatly improved if cast double, so as to admit a layer of india rubber between the two parts, one being within the other, which greatly lessens the heavy jarring occasioned by concussion on the rail.

SMUT IN WHEAT.—N. Simons, of Castile, N. Y., states in the Gen. Far. that he took six fine heads of wheat, and three of them he rubbed out and sowed with as many heads of smut. The product was two-thirds smut, as was found by counting the heads in the crop. The other three heads were sown on a clean place remote from the others; not a particle of smut was produced. This experiment entirely accords in result with others, showing conclusively the importance of clean seed.

ROOTS ON DRAINED SWAMP.—The Mark Lane Express gives the result of an experiment made on the lands of Lord Stairs in Wigtonshire, on a morass which had in part for thirty years been cut over for peat, and sixty acres of which were found barely sufficient to pasture two cows and their calves. It was drained, pared, burned, limed, manured, and sown to oats, and yielded 40 bushels per acre. Next year it was top-dressed, with gravel and sand, limed, manured and plowed; a part sown to turneps, yielded 32 tons per English acre; and seven acres planted to potatoes yielded 460 bushels per English acre.

WHEY FOR COWS.—The Herkimer dairymen give their whey to the cows, finding it more profitable than to feed it to their hogs. Most cows eat it greedily.

CITY MILK.—It is stated that the very unwholesome milk, which is so largely sold in New-York city, as "Pure Orange County," &c., and produced by closely imprisoned cows, fed on distiller's slops, may be known after a little experience by its peculiar and unpleasant smell. It is believed that a large part of the mortality

among children in cities, is owing to the use of such deleterious drinks.

WAGON GREASE.—Booth's patent grease for railway cars, might be useful perhaps elsewhere, being composed of tallow 8 lbs., palm oil 10 lbs., soda 4 lb., heated with a gallon of water till nearly boiling, and constantly stirred till down to 70° Fah.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, Jan. 21, 1848.

FLOUR—Genesee per bbl. \$6.06½—Ohio and Michigan \$5.06½.	
GRAIN—Wheat, Western, per bu. \$1.40—Corn, northern, 72½	
75c.—Rye, 40c.—Oats, 45½c.—Barley 40c.	
BUTTER—Orange County, per lb., 20a22c.—Western, dairy, 14a16c—Ohio 10a12c.	
CHEESE—per lb., 6a7c.	
BEEF—Mess, per bbl., \$8.37½a\$9.—Prime \$5.37½a\$6.	
PORK—Mess, per bbl., \$11.87a\$12.—Prime, dull, at \$7.75a\$8.	
HAMS—Smoked, per lb., 7a7½c.	
LARD—Per lb. 8a8½c.	
HEMP—Russia clean, per ton, \$225a\$235.—American dew-rotted, \$120a\$140.	
HOPS—First sort, per lb., 5a6c.	
COTTON—New Orleans and Alabama, per lb., 7a10c.—Up-land and Florida, 7a8½c.	
WOOL—(Boston prices.) Jan. 20.	
Prime or Saxon fleeces, washed per lb.	45a50 cts.
American full blood fleeces,	40a45 "
" three-fourths blood fleeces,	35a38 "
" half blood do	32a35 "
" one-fourth blood and common,	25a30 "

MOUNT AIRY AGRICULTURAL INSTITUTE.

THE subscriber having rented the MOUNT AIRY FARM, the late residence of James Gowen, Esq., with all its extensive and eligible appliances for the purposes of a Farm School, will remove his school, now the Duchess Agricultural Institute, of Dutchess Co., N. Y., to the above place, where he will open for the summer term on the first Thursday of April next; after which it will be known as the Mount Airy Agricultural Institute.

The winter term will commence on the first Thursday of October. This farm, which is located on the Germantown road, 7 miles from Philadelphia, Pa., having been so long known as the model farm of the United States, the site being proverbially beautiful and healthful, a minute description is deemed unnecessary; suffice it to say, that it presents every inducement and desirable facility for the establishment and maintenance of an Experimental, Practical and Scientific Agricultural Institute.

The course of instruction will be such as to give the students every facility for acquiring a thorough knowledge of Scientific and Practical Agriculture, with the use of the best modern farm machinery and implements, together with a select farmer's library, including numerous Agricultural Periodicals. Instructions will also be given in all the collateral branches requisite to insure the great desideratum which it was the object of the founder and Principal to supply by an education commensurate with the exalted destinies of a landed interest.

Chemistry and the other Natural Sciences receive particular attention—lectures with full experimental illustrations being connected with each course. The Zoonic course will commence with the Horse, a perfect skeleton of which being provided for illustration.

The best facilities are also afforded, that those who desire may here acquire a Commercial Education, to the end that they may lay the foundation in youth of a future life that shall be agreeable, healthful and useful.

Fee for the year, \$200, payable semi-annually in advance. This sum includes Tuition, Board, Washing, Fuel, and Lights. An extra charge of \$2.00 per annum will be made for pupils not furnishing their own bedding and toilet furniture. The modern languages \$10 each extra per term, as also drawing.

This Institution is under the patronage of the American Agricultural Institute, the Farmer's Club of the American Institute, and the Dutchess Agricultural Society.

For further particulars address JOHN WILKINSON, Principal of the Dutchess Ag. Institute, Poughkeepsie, N. Y., and after the 20th of March at the Mount Airy Agricultural Institute, Philadelphia, Pa.

REFERENCES.

Jas. Gowen, Esq., Philad., Pa.,	Wm. A. Davies, pres't of Far. & Manufac'ts Bank, Poughkeepsie,
Robert Ewing, Esq., "	M. J. Myers, pres't Merchant's Bank, Poughkeepsie.
Zebedee Cook, Esq., N. Y.,	Rev. H. G. Ludlow, Poughkeepsie,
Thos. McElrath, Esq., "	Rev. A. Polhemus, Hopewell, N. Y.
J. D. Wilhardon, Esq., N. Y.,	Rev. S. Mandeville, Lagrange, N. Y.
Rev. F. A. Farley, Brooklyn,	
Sam'l Allen, Esq., N. Y.,	
G. A. Amaux, Esq.,	
C. H. P. McLellan, Principal Poughkeepsie Female Academy,	Hon. Alfred Conkling, Auburn,
Geo. Vail, Esq., Troy, N. Y.	Robt. Farley, Esq., Boston, Mass.
Benj. P. Johnson, Esq., Albany,	Wm. C. Gibbs, ex-governor of Rhode Island, Newport, R. I.,
H. Weed, Esq., Newburgh, N. Y.	Geo. W. Dobbin, Esq., Baltimore,
Chas's Bartlett, Principal Collegiate school, Poughkeepsie,	R. W. Crookshank, jr., St. John, New Brunswick,

Feb. 1, 1848—21.

FRUIT AND ORNAMENTAL TREES, GRAPE-VINES, &c.

BLACK Hamburg, White Muscat of Alexandria, Royal Muscadine or Golden Chasselas, Early White Sweet Water Grape Vines, strong plants, raised from single eyes in pots and shifted, roots two years old and abundance of them, stems one year old, 6 feet ripe wood, price \$5 for 6—\$9 per dozen: *Cash with the order.* Taken out of the pots, carefully packed, the roots with the balls of earth in moss, and forwarded from New-York as directed. Also, good one year old plants of the above and other foreign varieties, at \$6 per dozen; and superior *Isabella* vines, 3 years old, for speedy bearing—\$4 for six, and \$7 per dozen: packed, &c. Also, other native varieties, and every description of *Fruit and Ornamental Trees, Shrubs, Vines, Plants, Roses, &c.* including the newest and choicest varieties, for sale at moderate prices, at the *Ancient and Real Linnaean Botanic Garden and Nursery*, late of *William Prince*, deceased, Flushing, L. I., near New-York. Descriptive Catalogues gratis, on application *post-paid*.
Feb. 1, 1848—21. WINTER & Co., Proprietors.

TO ALL AMATEUR POMOLOGISTS AND NURSERYMEN.

WM. R. PRINCE & Co., Flushing, have just issued a Supplementary Catalogue of Pears exclusively, stating the age, sizes, and prices; and also which are on Pear, and which on Portuguese Quince stock. This will be sent to all *post-paid* applicants. It is scarcely necessary to remark, that such is the scarcity of the choicest kinds of Pears, that although found in numerous Catalogues, there exists but few suitable for immediate sales. Having anticipated the demand, we have at great pains and expense concentrated in our establishment the *largest and finest collection of Pears existing either in Europe or America*. Those who send orders early will be supplied *without a single omission*, and we urge purchasers to inspect our Nurseries and judge for themselves. Of all other Fruit and Ornamental Trees, Shrubs and Plants, we have a great supply, and especially of Evergreens.

Table Grapes.

We now offer the most estimable assortment of Table Grapes ever presented to Amateurs, having culled the choicest from every country. An examination of the description in our Catalogue (36th edition) will satisfy every amateur on this point.

American Wine Grapes.

As our country has begun to develop its appropriateness for Vineyards, we have greatly increased our stock of the kinds of Grapes most suitable for that object, comprising 25 varieties, and will supply them by 100 or 1,000, at low rates. We have 20 varieties that are estimable for the table, several of which are equal or superior to the *Isabella* and *Catawba*.
Feb. 1, 1848—11.

ALBANY AGRICULTURAL WAREHOUSE, Nos. 10 and 12 Green-st.

CONSTANTLY for sale at the above establishment, all the most approved Machines, Implements and Tools required by the Farmer and Horticulturist, among which are the following:

Horse powers and Threshing Machines.
Fanning Mills, Grant's and others.
Straw and Cornstalk Cutters—all kinds.
Corn Shellers of all kinds.
Mott's Agricultural Furnaces, all sizes.
Vegetable Cutters, Hay and Manure Forks.
Corn and Cob Crushers.
Fitzgerald's Patent Burrstone Mills.
Howard's and Freeborn's Mills, &c., &c.

HORSE POWER, THRESHER, AND CORN SHELLER DEPOT.

ORDERS for the "Warren's and Trimble's best two and four Horse Powers and Threshers," Hand Threshers, Waterman's Corn Shellers, and other Agricultural Machinery, at wholesale and retail, will continue to be promptly attended to, as heretofore, by the subscribers at No. 5 Burling Slip, and 126 Pearl-st., New-York city. Nov. 1, 1847.—81. JAMES PLANT & Co.

SYRACUSE NURSERY.

THE subscribers would call the attention of the public to their extensive and well selected assortment of Fruit and Ornamental Trees, consisting of

200,000 Grafted Apple Trees, from 1 to 5 years' growth, 60,000 of which are from 6 to 9 feet high; 3 to 5,000 of the celebrated Northern Spy, 4 to 8 feet high, can be supplied without extra charge to those ordering other varieties.

6 to 8,000 Pear Trees, 4 to 7 feet high.
A few hundred of the *Onondaga*, and Van Mon's *Leon Le Clere*, (very thrifty,) can be supplied, of one and two years' growth, from 50 cts. to \$1.00 each.

1,000 Cherry Trees, 6 to 9 feet high.
10 to 15,000 Peach Trees, of the best early varieties, thrifty and free from disease.

Apriets and Nectarines, a good supply.
3 to 500,000 Apple Seedlings, from two to three years old, and unusually large.

Also, a large quantity of Horse Chestnut, Ailanthus, and Mountain Ash, of extra size, and good form, together with all the desirable varieties of the Grape.

All *post-paid* communications and orders containing remittances, promptly attended to.
Syracuse, N. Y., Nov 1—61. THORP & SMITH.

N. S. SMITH'S NEW AND IMPROVED BUFFALO SEEDLING POTATOES,

COMPRISING several sorts of Pinkeyes, Russets, Purples, Reds, C Whites, Rareripes, Orange, and others not yet fully developed. All purely Seedling—the product of a careful and expensive experiment of six years with the seed from the balls and its Seedlings in alternate reciprocal culture *Reciprocal*, because in each rotation the seed improves the Seedlings, and the Seedlings the seed. By this method of culture these potatoes have acquired a *healthy* and *early* character, are *very productive* and of the *finest quality*. Having been for so many years in succession planted in April. (in their seed,) and early harvested, they have become *constitutionally* what they are, and with early planting, early digging, dry and airy storage, they will prove *sound* and *durable*—and the method continued, the development of new varieties and improvements will also continue.

Also, "N. S. SMITH'S NEW AND IMPROVED BUFFALO SEEDLING POTATO SEED." This seed was gathered in the balls last September from a four acre crop of Seedlings, from improved seed sown in April last. Six years alternate reciprocal culture with its Seedlings, has given it an *early* and *very productive* character. It will produce Seedlings of the size of small birds, eggs as early as in May. Season favorable, with good culture, it will produce the first season sown, about 200 bushels per acre, a good proportion of marketable size, sufficiently mature for the table, and seed balls in abundance. Tubers of the weight of 12 oz. were quite common among the young Seedlings last fall, and on the roots of many single plants were found fully set and growing, hundreds of Seedlings, though when so numerous, mostly small. In addition, this seed is impregnated (by the pollen in the blows) with choice varieties, late from Germany, England, South America, Albany, Illinois, and home markets—mostly Seedlings, interspersed for that purpose in the field; and it will represent, when cultivated, all the distinct varieties grown in that field, besides an amusing freak of mottling, tinting, and originality. The seed may be sown in April like tomatoes, in a warm bed. Bleached cotton cloth, tacked on frames for potato beds, is better than glass. The beds should be open to warm rains and to all warm weather. The same hands in a given time will transplant with the young plants more ground than can be planted with tubers. (*Particular directions accompany the seed.*) These potatoes and seed were represented at the two last State and County Agricultural Fairs, and the first premiums awarded them. The cultivation of these potatoes and their seed will be continued at Buffalo with every possible improvement. Seedlings of approved varieties carefully packed in chaff, and delivered at the wharf or depot in Buffalo, \$5 per bushel—\$10 per barrel. Transportation safe from frosts after February. Seed per paper—sufficient to produce 10 bushels—\$1, with directions. It may be conveyed by mail with double postage. Orders and communications, *post-paid*, will receive prompt attention.
Buffalo, Jan. 13, 1848—31. N. S. SMITH.

Extract from the Report of the Committee on Vegetables at the last New-York State Fair.

"The committee on vegetables have reported, that for the greatest and best varieties of Seedling potatoes of approved varieties, they award the premium of ten dollars (\$10) to No. 73, presented by N. S. Smith, of Buffalo, N. Y. These potatoes were grown by the Rev. N. S. Smith, of Buffalo, who has favored us with the manner of their cultivation and production. He has been six years cultivating them from the balls that grow on top of the vines; his method is the alternate planting of the seed and tuber or potato, taking care to select always the best varieties. He has presented at the Fair as a specimen of his crop this season, thirty varieties of Seedlings, all of them evidently of fine quality. His specimens of this year's Seedlings, from the seed of his best Seedlings, are very fine. He presents, also, fine specimens of Seedlings from seed of Seedlings grown last year in Prussia, Germany, and fine varieties late from South America. Mr. Smith is confident, and the Judges favor the opinion, that in his experiments a great improvement in the potato is already accomplished; and he hopes to be able to obtain permanently, potatoes not only of the finest quality, but perfectly sound and hardy. The judges would recommend the attention of farmers to his specimens on the ground, and also to his mode of cultivation." Signed by DAVID GRAY, Chairman.

WATER RAMS.

A SUPERIOR article of Water-Rams for sale. Price \$15 to \$18. A. B. ALLEN & Co., 187 Water-st., N. Y.
Jan. 1—21.

SPRING WHEAT AND RYE.

SUPERIOR Spring Wheat for sale at \$2 per bushel. Spring Rye at \$1.75 per bushel. Also a complete assortment of Field and Garden Seeds of all kinds principally grown, and put up expressly for use.
A. B. ALLEN & Co., 187 Water st., N. Y.
Jan. 1—21.

TAR PAINT AND LIME.

TAR PAINT for sale at the Albany Gas Works: A *very cheap* article for covering barns, &c.
LIME for sale at the Albany Gas Works, *cheap*.
Oct. 1—61.*

For sale at the Office of the Cultivator,
FRUITS AND FRUIT TREES of America—illustrated edition, with Seventy colored Plates of Fruits—price \$15.—Also, the cheap edition of the same work—price \$1.50.

THE FRUIT CULTURIST, by J. J. Thomas—price 50 cents.

AGRICULTURAL IMPLEMENTS FOR SALE.

HORSE POWERS.—Taplin & Eddy's Circular Horse Powers. Price, \$60 to \$75; Wheeler & Whitman's Endless Chain do., single-horse, \$75; double-horse, \$100; Trimble's, Warren's, and Child's Cast-Iron do., \$50 to \$75.

GRAIN THRESHERS.—Wheeler's Thresher at \$25; ditto with Separator, \$35; Taplin & Eddy's Thresher, \$40; Trimble's and Warren's do., \$25; Whitman's and Pitts' Thresher, with Separator and Cleaner, for one or two horses, \$100. Pitts' Thresher, Separator, Cleaner, and Horse-power, complete, \$200.

CORN SHELLERS.—Corn Shellers to work by hand or other power. Price, \$3 to \$50.

STRAW CUTTERS.—Straw Cutters of various kinds, to work by hand or other power. Price, from \$3 to \$40.

GRAIN MILLS.—Grain Mills to work by hand or other power. Price, from \$5 to \$30. Do. of Burr Stone, from \$50 to \$125.

CORN AND COB CRUSHERS.—These grind corn and cobs together. Price, \$35 to \$50.

SPICE AND COFFEE MILLS.—Several of these are of a new and superior kind. Price, from \$2 to \$10.

PLOWS, for the South and North.—Superior Plows of various kinds for sod and stubble land, from one-horse to six horse draft. Also, the Scotch Iron, Centre-Draft, Self-Sharpening, Side-Hill, Wet Meadow, Double Mould Board, Paring, and Subsoil Plows, with common or patent dial clevis. Price from \$2 to \$20. The woods of the above plows are of choice white oak, and got out by patent machinery. The castings are of the best kind. Also a complete assortment of all kinds of Agricultural and Horticultural Implements, Field and Garden Seeds.

A. B. ALLEN & Co., 187 Water-st., N. Y.

Jan. 1—2t.

JUST PUBLISHED, AN ILLUSTRATED TREATISE ON DOMESTIC ANIMALS,

Being a History and Description of the Horse, Mule, Cattle, Sheep, Swine, Poultry, and Farm Dogs

WITH directions for their Management, Breeding, Crossing, Rearing, Feeding, and preparation for a profitable market. Also, their Diseases and Remedies, together with full directions for the Management of the Dairy, and the comparative economy and advantages of working animals, the Horse, Mule, Oxen, &c. By R. L. ALLEN, author of "Compend of American Agriculture," &c.

The above work contains more than FORTY ENGRAVINGS and PORTRAITS of improved animals, illustrative of the different breeds and various subjects treated in it.

The most minute as well as general principles for breeding, crossing, rearing, feeding, and management of all domestic animals, are herein given, to produce the utmost marketable value for the food and attention bestowed on them; as well as to prevent disease, and save the immense losses which annually occur from this source.

The diseases of animals are also fully treated, with their remedies, management, &c., &c. Published by C. M. SAXTON, 205 Broadway, N. Y.

Price, 75 cents, elegantly bound in cloth.
New-York, Jan. 1, 1848.—3t.

THE AMERICAN ARCHITECT.

Published Monthly, at \$3 per annum—Single numbers 25 cents—by C. M. Saxton, 205 Broadway, N. Y.

THE object of this publication is to introduce ORIGINAL DESIGNS of Country Seats, adapted to the varied tastes and circumstances of an American population—from the elegant Villa to the simple Cottage and plain Farm-House; from Planters' Mansions to Village Domicils. In a word, every variety of Rural Residences will be embraced in order to meet the views of every person desiring a Country House. In respect to style, cost, arrangement, finish, &c., utility will never be sacrificed: economy in the outlay, with an appropriate style, will always be kept in view. The requisite details, specifications, plans, and directions, with a careful and reliable estimate of the cost, will accompany each design. These are essential features of a *Practical Work*—and no labor will be spared in their preparation.

Of the diversity of human dwellings, whether marked by elegance, convenience, or utility, or by the want of them, none can compare in national importance and philosophical interest with the FARM HOUSE—the Homestead of our species.

The selection of designs by those about to build Country Residences, is commonly attended with embarrassment, and always with expense. When furnished by professional men from general ideas communicated by proprietors, they are seldom satisfactory. THE AMERICAN ARCHITECT, by furnishing a collection of designs adapted to all tastes and means, will remove every difficulty in the choice, and save money expended on plans of no use. It will furnish 12 Elevations, Plans and Specifications in each year, at a price not exceeding one seventh of the usual charge for one.

"The price is only 25 cents for each number, and it is surely next to impossible but that such a periodical will obtain a wide circulation."—N. Y. Tribune.

"This work promises to supply a want which has long existed, and to be of essential value."—Salem Register.

"This work cannot fail to be useful and popular."—Boston Bee.

"This is a good and beautiful work, and well adapted to effect a much desired reform in Am. Architecture."—Boston Trav.

The cost of building from the plans given, will be from \$600 to \$5000, with complete specifications from a first rate Mason and Carpenter, and the prices given can be depended upon.

New-York, Jan. 1—3t.

GODEY'S LADY'S BOOK AND FAMILY MAGAZINE FOR 1848.

INCREASED AND INCREASING ATTRACTION, with the largest circulation and greatest popularity of any Magazine in the United States.

New Department.—The Treasury

will contain articles from Bryant, Longfellow, Percival, Oliver Wendell Holmes, Washington Irving, N. P. Willis, Hoffman, Tuckerman, Simms, Halleck, Paulding, Mrs. Sigourney, Miss Gould, Dana, Herbert, Fitz Greene Halleck, Miss Sedgwick, Theodore S. Fay, from whom we have received a Novellette, which we shall shortly commence) Mrs. Annan, Park Benjamin, E. A. Poe, &c.

The most Beautiful Embellishments

From the hands of the first artists, and, consequently far superior to these in any other Magazine, adorn "The Book."

Ornament and Utility are Combined.

The popular series of articles on Health, Model Cottages, and Needle-Work, &c., illustrated with fine engravings, will be continued, and such other features as can be made subservient to the grand design of the work, the

Mental and Moral Improvement

of its readers, will from time to time be added.

Colored Fashions

every month, altered from the French to suit the more modest taste of the ladies of this country.

THIS IS THE BEST TIME TO SUBSCRIBE.—Persons commencing with the January number, will receive

Miss Leslie's new Novel,

now entire, as the portions already published will be reprinted in that number. No diminution in the usual interest and variety, but an increase in the number of the pages.

TERMS.

One copy one year, which includes "The Lady's Dollar Newspaper," \$3 00
(Making three publications in one month, for the above small sum.)
One copy two years, \$5 00
Two copies one year, 5 00
Five copies one year, (with an extra copy to the person sending the order,) 10 00
Eight copies one year, 15 00
Twelve do do, 20 00

Any Postmaster or Editor of a Newspaper sending us two dollars for the Lady's Book alone, may retain the other dollar as commission. This commission cannot be allowed when the Lady's Book and Dollar Newspaper are expected for \$3. Address

L. A. GODEY,

Jan. 1—2t.

113 Chestnut-st. Philadelphia.

THE LADY'S DOLLAR NEWSPAPER,

CONTAINING articles from the best writers of England and America, and translations from other languages. Also, all the English Annuals Entire,

which cost in this city from \$5 to \$10 each. An Annual will be published in one number, which will cost about four cents to the subscribers of the Lady's Dollar Newspaper.

In addition to the above, the paper will contain Tales, Poetry, Essays, Feminine Accomplishments, Useful Receipts for the Toilet, (from a work which has been imported expressly,) Fashions, Health, Fancy Work, Housekeeping, Domestic and Fancy Cookery, from Soyer's great book, just published.

It will be seen that the subscribers to this work will receive twice a week for one dollar, that which in any other shape would cost them from \$3 to \$6.

TERMS.

Single copy one year in advance, \$1; six copies, \$5; thirteen copies, \$10.

A copy of either work sent as a specimen gratis to any person who will pay the postage on the letter requesting it. Address

L. A. GODEY,

Jan. 1—2t.

113 Chestnut-st., Philadelphia.

COUNTRY SEAT FOR SALE.

THE elegant Country Seat, situate in the town of Livingston, Columbia county, on the New-York and Albany post-road, distant about nine miles southeast from the city of Hudson, and four miles east from the river—the late residence of Joseph W. Russell, deceased. The place consists of about 95 acres of highly cultivated land, and is well stocked with a great variety of choice fruit. The house is a substantial brick building, 60 feet by 40, well supplied with water from a large brick filtering cistern. The barns, carriage-house, ice-house, and other out-buildings, are large and commodious.

There are upon the place, wells and springs of pure water, at convenient distances from the house and barns.

The village of Johnstown, which is but a quarter of a mile distant, contains a church, school, post-office, &c.

The owner is willing to sell, *separately from the farm*, the Residence, with about twenty acres of land, embracing the entire ornamental part of the place; and including the garden, fruit trees, barn, carriage-house, ice-house, etc.

For terms and other particulars, enquire of

Albany, Dec. 1—6t.

W. E. BLEECKER.

WANTED TO PURCHASE

SOME superior Potato Onions, for seed; any person having from five to twenty bushels for sale, will find a customer, by applying, (if by letter, post-paid,) to CHARLES SPRATT, Utica.

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GRAPE VINES.

10,000 Isabella Grape Vines; **6,000** Catawba do.; **4,000** Alexander or Muscadell do.; of suitable age and size for forming Vineyards. **1,250** Catawba Vines, four years old, will produce fruit in 1848, suitable for gardens. For sale in large and small quantities on the best terms. Purchasers of vines from the subscriber will receive, free of charge, a practical treatise (just ready for the press) on the cultivation of American Grape Vines, and the manufacture of Wines, treating particularly of soil, location, planting of vines, manuring, training and pruning, illustrated with plates. Vines will be packed so as to be sent to any part of the world with safety. Letters of inquiry, *post paid*, promptly attended to. Apply to
B. G. BOSWELL,
Feb. 1—2t. 230 Pine-st., Philadelphia.

ENGLISH AND FRENCH GRASS SEEDS.

THE subscribers have just received from England and France, a superior lot of *fresh* Grass Seeds of various kinds. Among these are the Perennial and Italian Ray Grass, Sweet Vernal and Oat Grass, fine mixed Lawn Grass, White Clover and Lucerne, English Beans, Vetches, &c., &c. A. B. ALLEN & CO.,
Feb. 1, 1848—tf. 187 Water-st., New-York.

OSAGE ORANGE, YELLOW LOCUST, AND BUCKTHORN SEED.

THE above, together with a general and complete assortment of fresh Field and Garden Seeds, for sale by
A. B. ALLEN & CO.,
Feb. 1, 1848—tf. 187 Water-st., New-York.

SEED SOWERS.

FOR sale at the Albany Ag. Warehouse, a large supply of EMERY'S SEED SOWERS, on hand, and being made for spring sale. The manufacturer has been awarded the N. Y. State Ag. Society's first premium. He also received the first premium at the Fair of the Mechanic's Association, held at Boston in September last. Feb. 1, 1848. H. L. EMERY

NEW AGRICULTURAL WAREHOUSE.

SAMUEL C. HILLS, No. 189 Water-st., New York, offers for sale Prouty's Plows and Horse Rakes, Wilkinson's Harrows, Corn Mills, Corn Shellers, Straw Cutters, Horse Powers, Churns, Grain Cradles, Scythes, Hoes, Rakes, &c., &c. Patents secured upon moderate terms, and patent articles and rights bought and sold on commission. New-York, Jan. 1, 1848—3t.

15,000 Buckthorn Plants.

10,000 Osage Orange Plants.

Also, Buckthorn Seed by the pound or bushel. For sale by
Feb. 1. L. TUCKER, Ag. Warehouse.

FINE BLOOD MERINO SHEEP FOR SALE.

THE subscriber being about to retire from the farming business, offers for sale his entire flock of Merino sheep, which have been bred with the greatest care from the best flocks in the country. Of these 75 are ewes now with lamb by a buck from the recent imported flock of John A. Taintor, Esq., of Hartford, Conn.; 25 bucks one year old last spring from the above ewes, sired by the Rambouillet buck Chancehor; and 50 lambs the increase of last year, sired by the Rambouillet buck Grandee, now owned by the Rev. L. G. Bingham, of this place. As to purity of blood, fineness and weight of fleece, and strength of constitution, they are excelled by no Merinos in the country. The buck purchased from the recent importation of Mr. Taintor will also be offered for sale. To those wishing to improve their sheep, or those wishing to start a good flock, the present offers a rare opportunity, as they will be sold without reserve. Communications addressed to the subscriber will receive immediate attention. THOS. D. CANFIELD.
Williston, Vt., Jan. 15, 1848—3t.

IMPROVED PORTABLE RAILROAD HORSE-Powers, and Over-Shot Threshers and Separators.

HAVING sold about seventy sets of these Powers and Threshers the past season, many of which were purchased by some of the large wheat growers in this State, Vermont, Michigan, Illinois, Wisconsin, and Canada, and without exception having given entire satisfaction, (which was guaranteed in all cases,) we do not hesitate to recommend them to Farmers and Mechanics desiring such machines, as being in our opinion the most convenient, if not superior in all respects to any others now in use. Very many flattering testimonials have been received, several of them estimating the cost of threshing at less than one-half that with the ordinary sweep powers with from four to six horses. Having made arrangements for an extensive sale and supply for the current year, and with several improvements in their construction, and a better finished article, I am enabled to afford them on better terms, inasmuch as one-half the ordinary charges for freight during the months of navigation, will be allowed to any point on any of the canals within the State, and the same amount towards the freight if sent by any railroad. Some of the principal advantages of these machines are these.—The power itself occupies very little space, and is operated wholly, if desired, by the weight of the horse, the power being placed at an angle of ten to fifteen degrees only, according to the weight of the horse, which is found sufficient for threshing all grains, sawing wood, &c. It is comparatively light and portable, and can readily be handled by two men, and used on any common threshing floor, thereby securing ease and safety to both man and beast during stormy weather. The moving parts are very simple, as sufficient speed for all purposes is obtained with but one shaft, without gearing; thus avoiding a great amount of friction which is unavoidable in most other machines in use. The Thresher is rather new in many respects, and has several important advantages over most others. By having an over-shot cylinder, it admits of a level feeding table, and the person feeding it also has the control of the horse, and by means of a brake, the power can instantly be checked or stopped by him with perfect safety, thereby often avoiding accidents. By this over-shot motion, all hard substances are prevented from getting in, avoiding the danger of spikes being broken and thrown out—not an instance being known of such accident. By this machine the grain is not scattered, but thrown upon the floor within three feet of it, and admits a separator to be attached sufficiently high from the floor for all the grain to fall through it, while the straw is carried quite over in good condition for binding, the straw not being cut, or grain broken. The cylinder is considerably less in diameter than most machines in use, and has only about one-third as many spikes, but double the number in the concave, which admits of greater speed with the same power; it is also several inches longer, which gives ample room for feeding it to much better advantage. The separator has been sold with each thresher, and is considered indispensable, as it makes a perfect separation of the straw and grain, leaving the latter in the best possible condition for the fanning mill. Three men with a single power can thresh 75 to 100 bushels of wheat or rye, or four men with a double power 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the power, and one man to attend it, the grain can be cleaned for market at the same time. For further particulars see Descriptive Catalogue of Albany Ag. Warehouse and Seed Store, furnished gratis at the Store No. 10 & 12 Green-st., or by mail to post paid applicants. Feb. 1, 1848.

THE CULTIVATOR

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